As filed with the U.S. Securities and Exchange Commission on November 8, 2023

Registration No. 333-268008

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1/A
(Amendment No. 4)

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ARCH THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Nevada	**3841**	**46-0524102**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

235 Walnut St., Suite 6
Framingham, MA 01702
(617) 431-2313
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Terrence W. Norchi
President and Chief Executive Officer
235 Walnut St., Suite 6
Framingham, MA 01702
(617) 431-2313
(Name, address, including zip code, and telephone number, including area code, of agent for service)

With Copies to:

Michael J. Lerner **Alan Wovsaniker** **Lowenstein Sandler LLP** **One Lowenstein Drive** **Roseland, NJ 07068** **(973) 597-2500**	**Ralph V. De Martino** **Marc Rivera** **ArentFox Schiff LLP** **901 K Street NW, Suite 700** **Washington, DC 20001** **(202) 724-6848**

Approximate date of commencement of proposed sale to the public: As soon as possible after the effective date hereof.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains two prospectuses:

- A prospectus that covers the offer and sale by the registrant of up to $4,887,500 of Units (consisting of $4,887,500 of shares of Common Stock and Investor Warrants to purchase up to $4,887,500 of shares of Common Stock), up to $4,250,000 of Pre-Funded Units (consisting of Pre-Funded Warrants to purchase up to $4,250,000 of shares of Common Stock and Investor Warrants to purchase up to $4,250,000 of shares of Common Stock), up to $4,250,000 of shares of Common Stock underlying the Pre-Funded Warrants and up to $4,887,500 of shares of Common Stock underlying the Investor Warrants (the "**Company Prospectus**"); and

- A prospectus that covers the resale of (i) 8,644,907 shares of Common Stock, (ii) up to 35,582,926 shares of Common Stock underlying warrants and (iii) up to 2,350,691 shares of Common Stock issuable upon conversion of convertible promissory notes (the "**Resale Prospectus**").

The Company Prospectus immediately follows this Explanatory Note, and the Resale Prospectus immediately and sequentially follows the Company Prospectus.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 8, 2023

PRELIMINARY PROSPECTUS

ARCH THERAPEUTICS, INC.

1,030,303 Units (consisting of 1,030,303 Shares of Common Stock and Investor Warrants to Purchase up to 1,030,303 Shares of Common Stock)
Up to 1,030,303 Pre-Funded Units (consisting of Pre-Funded Warrants to Purchase up to 1,030,303 Shares of Common Stock and Investor Warrants to Purchase up to 1,030,303 Shares of Common Stock)
Up to 1,030,303 Shares of Common Stock Underlying the Pre-Funded Warrants and
Up to 1,030,303 Shares of Common Stock Underlying the Investor Warrants

We are offering units ("**Unit**s"), on a firm commitment basis, each Unit consisting of one share of our common stock, par value $0.001 per share ("**Common Stock**"), and one warrant to purchase one share of our Common Stock (the "**Investor Warrants**"). The Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of Common Stock can be purchased in this offering only with the accompanying Investor Warrants as part of a Unit (other than pursuant to the underwriters' option to purchase additional shares of Common Stock and/or Investor Warrants). The shares of Common Stock and Investor Warrants comprising the Units are immediately separable and will be issued separately in this offering. Each Investor Warrant offered hereby will be exercisable on the date of issuance at an assumed exercise price per share of Common Stock of $4.00 (which equals the minimum bid price per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A)), and will expire five years from the date of issuance. Pursuant to this prospectus, we are also offering the shares of Common Stock issuable upon exercise of the Investor Warrants.

We are also offering to each purchaser whose purchases of Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding Common Stock immediately following the consummation of this offering, the opportunity to purchase, if the purchaser so chooses, pre-funded units ("**Pre-Funded Units**") (each Pre-Funded Unit consisting of one pre-funded warrant ("**Pre-Funded Warrant**") to purchase one share of Common Stock and one Investor Warrant to purchase one share of Common Stock) in lieu of Units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding Common Stock (or at the election of the purchaser, 9.99%). Each Pre-Funded Warrant contained in a Pre-Funded Unit will be exercisable into one share of Common Stock, exercisable until all of the Pre-Funded Warrants are exercised in full. The purchase price of each Pre-Funded Unit will equal the price per Unit being sold to the public in this offering minus $0.001, and the exercise price of each Pre-Funded Warrant included in the Pre-Funded Unit will be $0.001 per share of Common Stock. This offering also relates to the shares of Common Stock issuable upon exercise of any Pre-Funded Warrants contained in the Pre-Funded Units sold in this offering. Each Investor Warrant contained in a Pre-Funded Unit will have an assumed exercise price of $4.00 (which equals the minimum bid price per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A)). The Investor Warrants contained in the Pre-Funded Units will be exercisable immediately and will expire five years from the date of issuance. Pursuant to this prospectus, we are also offering the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants and Investor Warrants contained in the Pre-Funded Units.

Our Common Stock is currently quoted on the QB tier of the OTC Marketplace ("**OTCQB**") under the symbol "ARTH". The last reported sale price of our Common Stock on November 7, 2023, was $6.40 (post-Reverse Split, as defined below) per share. The public offering price per Unit and Pre-Funded Unit, and the exercise price of the Investor Warrants, as applicable, will be determined between us and the underwriters based on market conditions at the time of pricing, and may be at a discount to the then current market price. Therefore, the recent market price used throughout this preliminary prospectus may not be indicative of the final offering price. Currently, there is a very limited market for our Common Stock and no established public trading market for the Investor Warrants being offered in this offering. We do not intend to apply for listing of the Pre-Funded Warrants on any securities exchange or other nationally recognized trading system. There is no established public trading market for the Pre-Funded Warrants, and we do not expect a market to develop. We have applied to list our Common Stock and Investor Warrants on The Nasdaq Capital Market (the "**Nasdaq Capital Market**") under the symbols "ARTH" and "ARTHW," respectively. There is no assurance that our listing application will be approved by the Nasdaq Capital Market or The Nasdaq Global Market, NYSE or NYSE American (each of the NYSE American, The Nasdaq Global Market and NYSE, an "**Alternate Exchange**"), or, if successful, that an active trading market for our Common Stock and Investor Warrants will develop or be sustained. If we are unable to list our Common Stock on the Nasdaq Capital Market or an Alternate Exchange, we will not consummate this offering.

For each Pre-Funded Unit we sell, the number of Units we are offering will be decreased on a one-for-one basis. The Units and the Pre-Funded Units will not be issued or certificated. The shares of Common Stock or Pre-Funded Warrants, as the case may be, and the Investor Warrants can only be purchased together in this offering but the securities contained in the Units or Pre-Funded Units will be issued separately.

The final public offering price per Unit and Pre-Funded Unit, and the exercise price of the Investor Warrants, as applicable, will be determined through negotiation between the underwriters and us at the time of pricing, considering our historical performance and capital structure, prevailing market conditions, and overall assessment of our business, and may be at a discount to the current market price. The price at which our Common Stock was quoted on the OTCQB may not be indicative of the actual public offering price for the Units or of the price at which our Common Stock may trade on the Nasdaq Capital Market or an Alternate Exchange in the future.

In connection with this offering, we intend to effect a reverse stock split of our Common Stock at a ratio of 1-for-8 the "Reverse Split"). All share and per share information in this prospectus has been adjusted to reflect the anticipated reverse stock split.

We are a "smaller reporting company" as defined under the federal securities laws and, as such, are eligible for reduced public company reporting requirements for this prospectus and future filings. See "**Prospectus Summary - Implications of Being a Smaller Reporting Company**".

Investing in our securities involves a high degree of risk. Before making any investment in our securities, you should read and carefully consider the risks described in this prospectus under the heading "Risk Factors" beginning on page 15 of this prospectus.

You should rely only on the information contained in this prospectus or any prospectus supplement or amendment thereto. We have not authorized anyone to provide you with different information.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Unit	Per Pre-Funded Unit	Total
Public offering price	$	$	$
Underwriting discounts and commissions	$	$	$
Proceeds, before expenses, to us (1)	$	$	$

(1) Excludes potential proceeds from the exercise of the Warrants or the Pre-Funded Warrants being offered pursuant to this prospectus.

We have granted the underwriters an option, exercisable within 45 days from the date of this prospectus, to purchase from us, up to an additional 154,545 shares of Common Stock at the public offering price and/or Investor Warrants to purchase up to 154,545 shares of Common Stock (equal to 15% of the shares of Common Stock (and Pre-Funded Warrants, if any) and Investor Warrants sold in this offering), in any combination, at a price per Investor Warrant equal to the public offering price, less, in each case, the underwriting discounts and commissions, to cover over-allotments, if any. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable will be $, and the total proceeds to us, before expenses, will be $.

The underwriters expect to deliver the securities to the purchasers on or about , 2023.

Sole Book-Running Manager

Dawson James Securities, Inc.

The date of this prospectus is , 2023

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ABOUT THIS PROSPECTUS

This prospectus relates to the primary offering and sale by Arch Therapeutics, Inc. of 1,030,303 Units, each consisting of one share of Common Stock and one Investor Warrant to purchase one share of Common Stock.

We are also offering to each purchaser whose purchase of Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding Common Stock immediately following the consummation of this offering, if the purchaser so chooses, Pre-Funded Units (each Pre-Funded Unit consisting of one Pre-Funded Warrant to purchase one share of Common Stock and one Investor Warrant to purchase one share of Common Stock) in lieu of Units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding Common Stock (or at the election of the purchaser, 9.99%).

We have not, and the underwriters have not, authorized anyone to provide you with information that is different from that contained in this prospectus. When you make a decision about whether to invest in our securities, you should not rely upon any information other than the information in this prospectus. Neither the delivery of this prospectus nor the sale of our securities means that the information contained in this prospectus is correct after the date of this prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy our securities in any circumstances under which the offer or solicitation is unlawful.

For investors outside the United States: We have not, and the underwriters have not, taken any action that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby and the distribution of this prospectus outside the United States.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "**Risk Factors**." These and other factors could cause our future performance to differ materially from our assumptions and estimates. See "**Risk Factors**" and "**Cautionary Note Regarding Forward-Looking Statements**."

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to this registration statement of which this prospectus forms a part, and you may obtain copies of those documents as described below under the heading "**Where You Can Find More Information**" beginning on page 109 of this prospectus.

As used in this prospectus, unless the context indicates or otherwise requires, the "**Company**", "**we**", "**us**", "**our**" and "**Arch**" refer to Arch Therapeutics, Inc., a Nevada corporation, and its consolidated subsidiary, and the term "**ABS**" refers to Arch Biosurgery, Inc., a private Massachusetts corporation that, through a reverse merger acquisition completed on June 26, 2013, has become our wholly owned subsidiary.

AC5, AC5-G, AC5-V, AC5-P, Crystal Clear Surgery, NanoDrape and NanoBioBarrier and associated logos are trademarks and/or registered trademarks of Arch Therapeutics, Inc. and subsidiary. All other trademarks, trade names and service marks included in this prospectus are the property of their respective owners.

This prospectus and the information incorporated by reference into this prospectus contain references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus and the information incorporated by reference into this prospectus, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other company.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks, uncertainties and assumptions. In some cases, you can identify forward-looking statements by terminology such as "if," "shall," "may," "might," "will likely result," "should," "expect," "plan," "anticipate," "believe," "estimate," "project," "intend," "goal," "objective," "predict," "potential" or "continue," or the negative of these terms or other comparable terminology. All statements made in this prospectus other than statements of historical fact are statements that could be deemed forward-looking statements, including without limitation statements about our business plan, our plan of operations and our need to obtain future financing. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks in the section entitled "**Risk Factors**" beginning on page 15 of this prospectus, and the risks set out below, any of which may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks include, by way of example and not in limitation, risks related to:

- Our ability to continue as a going concern;
- Our ability to obtain financing necessary to operate our business;
- Our limited operating history;
- Our ability to comply with the terms and covenants of our existing agreements and outstanding convertible notes, including the First Notes (as defined below) which are secured by security interests in substantially all of our assets;
- The dilutive effect of our outstanding warrants and convertible notes;
- The results of our research and development activities, including uncertainties relating to the preclinical and clinical testing of our product candidates;
- The commercialization of our primary product candidate;
- Our ability to develop, obtain required approvals for and commercialize our product candidates;
- Our ability to recruit and retain qualified key executives, and medical and science personnel;
- Our ability to develop and maintain an effective sales force to market our approved product candidates;
- Our ability to manage any future growth we may experience;
- Our ability to obtain and maintain protection of our intellectual property;
- Our dependence on third party manufacturers, suppliers, research organizations, academic institutions, testing laboratories and other potential collaborators;
- The size and growth of the potential markets for any of our approved product candidates, and the rate and degree of market acceptance of any of our approved product candidates;
- Our ability to successfully complete potential acquisitions and collaborative arrangements;
- Competition in our industry;
- The impact of the COVID-19 pandemic, and related responses of businesses and governments to the pandemic, on our operations and personnel, on commercial activity in the markets in which we operate and on our results of operations;
- General economic and business conditions; and
- Other factors discussed under the section entitled "**Risk Factors**."

New risks emerge in our rapidly-changing industry from time to time. As a result, it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business. If any such risks or uncertainties materialize or such assumptions prove incorrect, our results could differ materially from those expressed or implied by such forward-looking statements and assumptions. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity or performance. These forward-looking statements speak only as of the date of this prospectus. Except as required by applicable law, we do not intend to update any of these forward-looking statements.

PROSPECTUS SUMMARY

*This summary highlights selected information from this prospectus and does not contain all of the information that is important to you in making an investment decision. This summary is qualified in its entirety by the more detailed information included elsewhere in this prospectus. Before making your investment decision with respect to our securities, you should carefully read this entire prospectus, including the information under "**Risk Factors**," beginning on page 15 of this prospectus, "**Management's Discussion and Analysis of Financial Condition and Results of Operations**," beginning on page 45, and the financial statements and the accompanying notes beginning on page F-1 of this prospectus.*

Our Company

We are a biotechnology company marketing a number of products based on our innovative AC5® self-assembling technology platform. We believe these products are important advances in the field of stasis and barrier applications, which includes managing wounds created during surgery, trauma, interventional care or disease; stopping bleeding (hemostasis); and controlling leaking (sealant). We have recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5® Advanced Wound System, our first product. Our goal is to make care faster and safer for patients with products for use on external wounds, which we refer to as Dermal Sciences applications, and products for use inside the body, which we refer to as BioSurgery applications.

Our flagship products and product candidates are derived from our AC5® self-assembling peptide ("**SAP**") technology platform and are sometimes referred to as AC5 or the "AC5 Devices." These include AC5 Advanced Wound System and AC5® Topical Hemostat, which have received marketing authorization as medical devices in the United States and Europe, respectively, and which are intended for skin applications, such as management of complicated chronic wounds or acute surgical wounds. Marketing for AC5 Topical Hemostat in Europe has not initiated. Other products are in development for use in minimally invasive or open surgical procedures and include, for example, AC5-G™ for gastrointestinal endoscopic procedures and AC5-V™ and AC5® Surgical Hemostat for hemostasis inside the body, all of which are currently investigational devices limited by law to investigational use.

Products based on the AC5 platform contain a proprietary biocompatible peptide that is synthesized from proteogenic, naturally occurring L-amino acids. Unlike products that contain traditional peptide sequences, when applied to a wound, AC5-based products intercalate into the interstices of the tissue and self-assemble (i.e., self-build) into a protective physical-mechanical nanoscale structure that can provide a barrier to leaking substances, such as blood, while also acting as a biodegradable scaffold that enables healing. Self-assembly is a central component of the mechanism of action of our technology. Individual AC5 peptide units readily build themselves, or self-assemble, into an ordered network of nanofibrils when in aqueous solution by the following process:

- Peptide strands line up with neighboring peptide strands, interacting via hydrogen bonds (non-covalent bonds) to form a ribbon-like structure called a beta sheet.
- This process continues such that hundreds of strands organize with charged and polar side chains oriented on one face and non-polar side chains oriented on the opposite face of the beta sheets.
- Interactions of the resulting structure with water molecules and ions results in formation nanofibrils, which extend in length and can join together to form larger nanofibers.
- This network of AC5 peptide nanofibers forms the semi-solid physical-mechanical barrier that interacts with the extracellular matrix, is responsible for sealant, hemostatic and/or other properties that may be observed even in the presence of antithrombotic agents (i.e., blood thinners), and which subsequently becomes the scaffold that supports the repair and regeneration of damaged tissue.

Based on the intended application, we believe that the underlying AC5 SAP technology can impart important features and benefits to our products that may include, for instance, stopping bleeding (hemostasis), mitigating contamination, modulating inflammation, donating moisture, and enabling an appropriate wound microenvironment conducive to healing. Furthermore, we believe that AC5 SAP technology permits cell and tissue growth and is self-healing, in that it can dynamically self-repair around migrating cells. For instance, AC5 Advanced Wound System, which is indicated for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds, is shipped and stored at room temperature, is applied directly as a liquid, can conform to irregular wound geometry, self-assembles into a wound care matrix that can provide clinicians with multi-modal support, and does not possess sticky or glue-like handling characteristics. We believe these properties enhance its utility in several settings and contribute to its user-friendly profile.

We believe that our technology lends itself to a range of potential applications for wounds inside or on the body, including those for which a hemostatic agent or sealant is needed. For instance, the results of certain preclinical and clinical investigations that either we have conducted, or others have conducted on our behalf, have shown quick and effective hemostasis with the use of AC5 SAP technology, and that time to hemostasis ("**TTH**") is comparable among test subjects regardless of whether such test subject had or had not been treated with therapeutic doses of anticoagulant or antiplatelet medications, commonly called "blood thinners." Furthermore, the transparency and physical properties of certain AC5 Devices may enable a surgeon to operate through it in order to maintain a clearer field of vision and prophylactically stop or lessen bleeding as surgery starts, a concept that we call Crystal Clear Surgery™. An example of a product that contains related features and benefits is AC5 Topical Hemostat, which is indicated for use as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound. AC5 Topical Hemostat has not yet been marketed in Europe but has received marketing authorization.

Sales and marketing efforts for our AC5 Advanced Wound System, which has received 510(k) marketing clearance from the FDA, address the demand for improved solutions to treat challenging chronic and acute surgical wounds, with a particular early focus on diabetic foot ulcers, venous leg ulcers and pressure ulcers. Chronic wounds are typically defined as wounds that have not healed after four weeks of standard care. Approximately 4 million to 6.5 million new onset chronic wounds are estimated to occur in the U.S. annually, including approximately 700,000 to 2 million diabetic foot ulcers, 2.5 million pressure ulcers, and 1.2 million venous leg ulcers. If untreated, improperly treated or unresponsive to treatment, these wounds can ultimately lead to amputation. The 5-year mortality rate among patients with chronic wounds, especially after an amputation, is significant.

Published data on AC5 Advanced Wound System shows encouraging outcomes, including limb salvage (avoided limb loss), among patients with multiple co-morbidities and challenging chronic wounds that failed to heal despite treatment with either traditional or other advanced wound care modalities over prolonged periods of time.

We currently maintain an internal commercial team focused on driving awareness and adoption of AC5 Advanced Wound System in several targeted channels with a particular focus on physician offices and government channels, such as Veterans Affairs ("**VA**") hospitals and military treatment facilities ("**MTFs**"). We anticipate that material growth in the physician office setting will require product reimbursement. To that end, we submitted an application to the Centers for Medicare and Medicaid Services ("**CMS**") in July 2022 for a unique product reimbursement code. Our application was subsequently approved with a go-live date of April 1, 2023. We have launched a temporary reimbursement support program in line with CMS guidance to support commercial use and adoption of AC5 Advanced Wound System both before and after the go-live date of our unique product code (A2020). In support of the VA and MTF market, we partnered with Lovell Government Services (" **LGS**"), a service-disabled veteran-owned small business, as its distributor in the government channel. As a direct result of its relationship with LGS, AC5 Advanced Wound System is listed on the four major government supply schedules (ECAT, DAPA, FSS and GSA) in order to allow doctors in any VA or MTF to order AC5 Advanced Wound System. We have also established and will continue to seek partnerships with reputable, value-added independent sales distributors on a case-by-case basis to expand the overall reach and footprint of its total sales organization. Presently, our commercialization efforts and resources remain dedicated to the U.S. market for advanced wound care.

Much of our operational efforts to date, which we often perform in collaboration with partners, have included selecting compositions and formulations for our initial products; conducting preclinical studies, including safety and other tests; conducting a human trial for safety and performance of AC5; developing and conducting a human safety study to assess for irritation and sensitization potential; securing marketing authorization for our first product in the United States and in Europe; supporting surgeons performing clinical case studies; obtaining post-marketing clinical data; developing, optimizing, and validating manufacturing methods and formulations, which are particularly important components of self-assembling peptide development; developing methods for manufacturing scale-up, reproducibility, and validation; engaging with regulatory authorities to seek early regulatory guidance as well as marketing authorization for our products; sourcing and evaluating commercial partnering opportunities in the United States and abroad; and developing and protecting the intellectual property rights underlying our technology platform.

Our long-term business plan includes the following goals:

- Continue to build recent commercial momentum and grow revenues by driving awareness, adoption and payment policies for AC5 Advanced Wound System with the now-effective CMS Level II Healthcare Common Procedure Coding System ("**HCPCS**") code dedicated to the "AC5";
- conducting biocompatibility, pre-clinical, and clinical studies on our products and product candidates;
- obtaining additional marketing authorization for products in the United States, Europe, and other jurisdictions as we may determine;
- continuing to develop third party relationships to manufacture, distribute, market and otherwise commercialize our products;
- continuing to develop academic, scientific and institutional relationships to collaborate on product research and development;
- expanding and maintaining protection of our intellectual property portfolio; and
- developing additional product candidates in Dermal Sciences, BioSurgery, and other areas.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding as required to support the milestones described previously and our operations generally;
- work with our manufacturing partners to scale up production of product compliant with current good manufacturing practices ("**cGMP**"), which activities will be ongoing and tied to our development and commercialization needs;
- further clinical development of our product platform;
- assess our technology platform in order to identify and select product candidates for potential advancement into development;
- seek regulatory input to guide activities related to expanded and new product marketing authorizations;
- continue to expand and enhance our financial and operational reporting and controls;
- pursue commercial partnerships; and
- expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and/or adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio.

We do not believe that our current cash on hand as of October 25, 2023 is sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. Even if this offering is successful, depending upon additional input from EU and US regulatory authorities, however, we do not expect to generate sufficient revenues from operations before we need to raise additional capital. Further, our estimates regarding our use of cash could change if we encounter unanticipated difficulties or other issues arise, including without limitation those set forth in this prospectus under the heading "**Risk Factors**" beginning on page 15, in which case our current funds may not be sufficient to operate our business for the period we expect.

Additionally, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA (as defined below), PIPE SPA (as defined below) and securities purchase agreement dated July 6, 2022, as amended (the "**2022 Notes SPA**"), associated with the sale of the 2022 Notes (as defined below) (the "**2022 Notes Financing**"), in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future***" under the heading "**Risk Factors**" in this prospectus.

We have an aggregate of $6,268,501 in principal outstanding as of October 25, 2023 under the 2022 Notes and an aggregate of $587,959 in principal and accrued interest outstanding as of October 25, 2023 (calculated through maturity) under the Series 2 Notes (as defined below). The holders of the First Notes (as defined below) have been granted a security interest in substantially all of our assets pursuant to the terms of the security agreement dated July 6, 2022 (the "**Security Agreement**"), pursuant to which we provided a security interest in, and a lien on, substantially all of our assets as collateral for the repayment of the First Notes. If we fail to make payments on the First Notes when due or otherwise comply with the covenants contained in the First Notes, the First Note holders could declare us in default, in which event such holders would have the right to exercise their rights as a secured creditor with respect to our assets that secure the indebtedness, which would force us to suspend operations.

Proposed Listing on the Nasdaq Capital Market or an Alternate Exchange

Our Common Stock is presently quoted on the OTCQB under the trading symbol "ARTH." In connection with this offering, we have applied to list our Common Stock and Investor Warrants on the Nasdaq Capital Market under the symbols "ARTH" and "ARTHW," respectively. Although we have applied to list the Investor Warrants, there is no established public trading market for the Investor Warrants and without an active trading market, the liquidity of the Investor Warrants will be limited. No assurance can be given that our listing application for our Common Stock and Investor Warrants will be approved by the Nasdaq Capital Market or an Alternate Exchange. If our listing application is approved, our Common Stock will cease to be traded on the OTCQB. This offering will occur only if the Nasdaq Capital Market or an Alternate Exchange approves the listing of our Common Stock by November 15, 2023. The Nasdaq Capital Market and Alternate Exchange listing requirements include, among other things, a stock price threshold. As a result, prior to effectiveness, we will need to take the necessary steps to meet Nasdaq Capital Market listing requirements or the listing requirements of an Alternate Exchange, including but not limited to a reverse split of our outstanding shares of Common Stock.

Implications of Being a Smaller Reporting Company

We are a "smaller reporting company," meaning that the market value of our Common Stock held by non-affiliates is less than $700 million and our annual revenue is less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our stock held by non-affiliates is less than $250 million as of the last business day of our second fiscal quarter or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Corporate Information

Arch Therapeutics, Inc. (together with its subsidiary, the "**Company**" or "**Arch**") arose from the June 26, 2013 merger (the "**Merger**") of three entities previously known as Arch Biosurgery, Inc., Almah, Inc., and Arch Acquisition Corporation, respectively.

Arch Biosurgery, Inc. ("**ABS**"), a biotechnology company, was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc., changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. on April 7, 2008, and, as part of the Merger transaction, changed its name from Arch Therapeutics, Inc. to Arch Biosurgery.

Almah, Inc., was incorporated under the laws of the State of Nevada on September 16, 2009 and, as part of the Merger transaction, changed its name to Arch Therapeutics, Inc. and abandoned both its prior business plan and operations in order to adopt those of ABS.

Arch Acquisition Corporation, or Merger Sub, was a wholly owned subsidiary of Almah, Inc., formed for the purpose of the Merger transaction, pursuant to which Merger Sub merged with and into ABS, and ABS thereafter became the wholly owned subsidiary of the Company.

Prior to the completion of the Merger, we were a "shell company" under applicable rules of the SEC, and had no or nominal assets or operations.

Our principal executive offices are located at 235 Walnut St., Suite 6, Framingham, Massachusetts 01702. The telephone number of our principal executive offices is (617) 431-2313. Our website address is http://www.archtherapeutics.com. We have not incorporated by reference into this prospectus the information on, or that can be accessed through, our website, and you should not consider it to be a part of this document. You should not rely on any information on that website in making your decision to purchase shares of our Common Stock.

Recent Developments

Commercial Update

During its fourth fiscal quarter ended September 30, 2023, the Company experienced a significant increase in AC5 orders, posting record monthly order volumes during both August and September. Taken together, orders from August and September represented more than half of total fiscal year volume, and September orders more than doubled August orders. The Company also observed favorable coverage and reimbursement decisions from multiple payors in different regions of the country with a commensurate increase in paid claims. Early in the fourth fiscal quarter, the Company received its first payment from a provider as a result of a paid claim for reimbursement of AC5 using A2020, and the number of paid claims across different payor networks increased throughout the quarter. The trend has continued into November 2023.

Charter Amendments

On July 18, 2023, the board of directors of the Company (the "**Board**") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "**Amendment**") to (i) increase the total number of authorized shares of Common Stock from 12,000,000 to 350,000,000 (the "**Authorized Share Increase**"), (ii) authorize 5,000,000 shares of "blank check" preferred stock of the Company, thereby giving the Board the authority to designate from time to time one or more series of preferred stock (the "**Blank Check Preferred**"), and (iii) provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**" and, together with the Authorized Share Increase and the Blank Check Preferred, the "**Charter Amendments**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company (the "**Majority Stockholders**") executed a written consent approving the Charter Amendments and the Company filed a preliminary Information Statement with the SEC with respect to the transactions contemplated hereby. The Company filed a definitive Information Statement with the SEC and mailed the definitive Information Statement to the Company's stockholders notifying them of the action taken by written consent on September 1, 2023. Accordingly, the Company filed the Amendment with respect to the Authorized Share Increase and the Blank Check Preferred with the Secretary of State of Nevada on September 21, 2023. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

PIPE, Bridge and Note Financings

Uplist PIPE

On November 8, 2023, the Company and certain institutional and accredited individual investors (collectively, the "**PIPE Investors**") entered into a Securities Purchase Agreement (the "**PIPE SPA**"), pursuant to which the Company has agreed to issue and sell to the PIPE Investors, and the PIPE Investors have agreed to purchase from the Company, an aggregate of (i) warrants (the "**PIPE Pre-Funded Warrants**") to purchase an aggregate of 1,716,780 shares of Common Stock (the "**PIPE Pre-Funded Warrant Shares**") and (ii) warrants (the "**PIPE Investor Warrants**" and together with the PIPE Pre-Funded Warrants, the "**PIPE Warrants**") to purchase an aggregate 1,716,780 shares of Common Stock (the "**PIPE Investor Warrant Shares**" and together with the PIPE Pre-Funded Warrant Share, the "**PIPE Warrant Shares**"), at a purchase price of $4.124 per PIPE Pre-Funded Warrant to purchase one share of Common Stock and accompanying PIPE Investor Warrant to purchase one share of Common Stock, for aggregate gross proceeds of $7.1 million, before deducting the placement agent's fees and estimated offering expenses, and expected net proceeds of $6.4 million after deducting the placement agent's fees and estimated offering expenses payable by the Company. The PIPE Pre-Funded Warrants and PIPE Investor Warrants will be issued as part of a private placement offering authorized by the Company's board of directors (the "**Uplist PIPE**"). The Company currently intends to use the net proceeds it receives from the Uplist PIPE for product marketing and for general working capital purposes. The purpose of the Uplist PIPE is mainly to assist the Company in meeting the initial listing requirements of the Nasdaq Capital Market, including for purposes of the minimum stockholders' equity requirement and the requirement of the Company to achieve its listing in connection with a firm commitment underwritten public offering.

The closing of the Uplist PIPE is contingent upon, among other conditions, the registration statement of which this prospectus forms a part being declared effective by the SEC and the approval of the listing of the Common Stock on Nasdaq, and the closing is expected to occur immediately prior to the pricing of this offering.

The Company retained Dawson James Securities, Inc. ("**DJ**"), pursuant to a placement agency agreement, dated November 8, 2023, as placement agent in connection with the Uplist PIPE. The Company will pay DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Uplist PIPE (expected to be $566,400), will reimburse DJ for legal and other expenses of up to $150,000 and will issue to DJ, or its designees, warrants (the "**PIPE Placement Agent Warrants**") to purchase an aggregate of 85,839 shares of Common Stock. The PIPE Placement Agent Warrants will be exercisable at any time and from time to time, in whole or in part, during the five-year period commencing upon issuance, at a price per share equal to $5.15625 (which is 125% of the price per Unit sold in this offering).

PIPE Pre-Funded Warrants

The PIPE Pre-Funded Warrants (i) will have a nominal exercise price of $0.001 per share; (ii) will be exercisable immediately upon issuance; (iii) will be exercisable until all of the PIPE Pre-Funded Warrants are exercised in full; and (iv) will have have a provision preventing the exercisability of such PIPE Pre-Funded Warrants if, as a result of the exercise of the PIPE Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than either 4.99% or 9.99% of the Common Stock (the "**Ownership Limitation**") immediately after giving effect to the exercise of the PIPE Pre-Funded Warrants.

PIPE Investor Warrants

The PIPE Investor Warrants (i) will have an exercise price of $4.00 per share; (ii) will have a term of exercise equal to 5 years after their issuance date; (iii) will be exercisable immediately upon issuance; and (iv) will have a provision preventing the exercisability of such PIPE Investor Warrants if, as a result of the exercise of the PIPE Investor Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the PIPE Investor Warrants.

Pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which this offering is intended to be, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants (as defined below), Uplist Conversion Warrants (as defined below) and Exchange Investor Warrants (as defined below) for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the PIPE Investors dated November 8, 2023 (the "**PIPE Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) the closing date of the Uplist Transaction and (ii) the 60th calendar day following the date of the PIPE Registration Rights Agreement one or more registration statements to register the PIPE Warrant Shares, the Uplist Conversion Warrant Shares (as defined below) and the 2022 Note Conversion Pre-Funded Warrant Shares (as defined below) for resale under the Securities Act. The Company's failure to satisfy certain filing and effectiveness deadlines and certain other requirements set forth in the PIPE Registration Rights Agreement may subject the Company to payment of monetary penalties. The Resale Prospectus currently covers the resale of the PIPE Warrant Shares, the Uplist Conversion Warrant Shares and the 2022 Note Conversion Pre-Funded Warrant Shares.

Bridge Offering

Between July 7, 2023 and September 11, 2023, pursuant to a Securities Purchase Agreement dated July 7, 2023, as subsequently amended (the "**Bridge SPA**"), among the Company and certain institutional and accredited individual investors (collectively, the "**Bridge Investors**") the Company issued and sold to the Bridge Investors an aggregate of (i) 418,051 shares (the "**Bridge Shares**") of Common Stock; (ii) warrants (the "**Bridge Pre-Funded Warrants**") to purchase an aggregate of 756,871 shares of Common Stock (the "**Bridge Pre-Funded Warrant Shares**"); and (iii) warrants (the "**Common Warrants**" and together with the Bridge Pre-Funded Warrants, the "**Bridge Warrants**") to purchase an aggregate 2,349,826 shares of Common Stock (the "**Common Warrant Shares**" and together with the Bridge Pre-Funded Warrant Share, the "**Bridge Warrant Shares**"), at a purchase price of $2.20 per Bridge Share and accompanying Common Warrant to purchase two shares of Common Stock, and $2.192 per Bridge Pre-Funded Warrant to purchase one share of Common Stock and accompanying Common Warrant to purchase two shares of Common Stock. The Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants were issued as part of a private placement offering authorized by the Company's board of directors (the "**Bridge Offering**").

Pursuant to the Bridge SPA, the Bridge Investors agreed not to sell or otherwise transfer any of the Bridge Shares or Bridge Warrant Shares prior to the one-year anniversary of the Bridge Closing Date. In the event that a Bridge Investor purchases securities in connection with an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which this offering is intended to be, and/or in the Uplist PIPE, with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, the one-year lock-up period will no longer apply to the Bridge Shares and Bridge Warrants. The aggregate gross proceeds for the sale of the Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants was approximately $2.6 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The first closing of the sales of these securities under the Bridge SPA occurred on July 7, 2023 (the "**Bridge Closing Date**").

Under the Bridge SPA, the Company also agreed that upon the closing of the next underwritten public offering of Common Stock (a "**Qualifying Offering**"), which the Company agreed is this offering, if the effective offering price to the public per share of Common Stock (the "**Qualifying Offering Price**") is lower than $32.00 per share, then the Company shall issue additional Bridge Pre-Funded Warrants (the "**True-Up Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**True-Up Pre-Funded Warrant Shares**"), or shares of Common Stock (the "**True-Up Shares**") in lieu thereof to the extent necessary to cause the Company to meet the listing requirements of the Company's proposed trading market in the Uplist Transaction, in an amount reflecting a reduction in the purchase price paid for the Bridge Shares and Bridge Pre-Funded Warrants that equals the proportion by which the Qualifying Offering Price is less than $32.00. The Company also agreed that the Qualifying Offering Price as a result of this offering is $4.00. **Accordingly, at the closing of this offering, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, the Company expects to issue (i) True-Up Pre-Funded Warrants with an exercise price of $0.001 to purchase an aggregate of 5,695,529 shares of Common Stock and (ii) an aggregate of 2,528,812 True-Up Shares to the Bridge Investors.** The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and this offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341. The Resale Prospectus currently covers the resale of the True-Up Pre-Funded Warrant Shares and True-Up Shares.

The Company retained DJ as placement agent in connection with the Bridge Offering. The Company paid DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Bridge Offering and reimbursement of expenses of $50,000. Additionally, on September 7, 2023 the Company issued to DJ, or its designees, warrants, as subsequently amended (the "**Placement Agent Warrants**") to purchase an aggregate of 55,242 shares of Common Stock. The Placement Agent Warrants are exercisable at any time and from time to time, in whole or in part, until September 7, 2028, at a price per share equal to $2.20 (which will increase to $5.15625 at the closing of the Uplist Transaction, representing 125% of the assumed price per share of Common Stock in the Uplist Transaction, as required by FINRA).

Bridge Pre-Funded Warrants

The Bridge Pre-Funded Warrants (i) have a nominal exercise price of $0.008 per share; (ii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance, (B) 120 days after the closing date of an Uplist Transaction, and (C) the date that a registration statement registering the Bridge Pre-Funded Warrant Shares is declared effective; (iii) are exercisable until all of the Bridge Pre-Funded Warrants are exercised in full; and (iv) have a provision preventing the exercisability of such Bridge Pre-Funded Warrants if, as a result of the exercise of the Bridge Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Bridge Pre-Funded Warrants.

Common Warrants

The Common Warrants (i) have an exercise price of $8.00 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance and (B) the date that a registration statement registering the Common Warrant Shares is declared effective; (iv) have a provision permitting voluntary adjustments to the exercise price by the Company, subject to the prior written consent of the Common Warrant holder; (v) are automatically exchanged upon the closing of an Uplist Transaction for a new warrant that is identical to the warrants (other than any pre-funded warrants), if any, being issued to investors in such Uplist Transaction, with the number of shares underlying such new warrant being equal to the number of Common Warrant Shares then underlying the Common Warrant multiplied by three and (vi) have a provision preventing the exercisability of such Common Warrants if, as a result of the exercise of the Common Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Company Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Common Warrants. **Accordingly, at the closing of this offering, the Common Warrants will be cancelled and exchanged for newly issued warrants identical to the Investor Warrants to purchase an aggregate of 7,049,447 shares of Common Stock at an exercise price per share equal to the exercise price per share of the Investor Warrants (the "Exchange Investor Warrants").**

In addition, as noted above, pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the Bridge Investors dated July 7, 2023, as subsequently amended (the "**Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) 30 days following the closing date of the Uplist Transaction and (ii) November 30, 2023 one or more registration statements (any such registration statement, a "**Resale Registration Statement**") to register the Bridge Shares, the Bridge Warrant Shares and the shares of Common Stock issuable upon exercise in full of the Exchange Investor Warrants (the "**Exchange Investor Warrant Shares**") for resale under the Securities Act of 1933, as amended (the "**Securities Act**"). The Company's failure to satisfy certain filing and effectiveness deadlines with respect to a Resale Registration Statement and certain other requirements set forth in the Registration Rights Agreement may subject the Company to payment of monetary penalties. The Resale Prospectus currently covers the resale of the Bridge Shares, the Bridge Warrant Shares and the shares of Common Stock issuable upon exercise of the Placement Agent Warrants.

Note Modification Agreements

On November 8, 2023, the Company entered into an amendment ("**Amendment No. 12 to the First Notes**") with the holders of the Company's outstanding Senior Secured Convertible Promissory Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**First Notes**"), issued in connection with a private placement financing the Company completed on July 6, 2022 (the "**First Closing**"). On November 8, 2023, the Company also entered into an amendment ("**Amendment No. 12 to the Second Notes**") with the holders of the Company's outstanding Unsecured Convertible Promissory Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**Second Notes**"), issued in connection with a private placement financing the Company completed on January 18, 2023 (the "**Second Closing**"). On November 8, 2023, the Company also entered into an amendment ("**Amendment No. 7 to the Third Notes**" and, together with Amendment No. 12 to the First Notes and Amendment No. 12 to the Second Notes, the "**Amendments to the 2022 Notes**") with the holders of the Company's outstanding Unsecured Convertible Promissory Notes, as separately amended on June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**Third Notes**" and, together with the First Notes and Second Notes, the "**2022 Notes**"), issued in connection with a private placement financing the Company completed on May 15, 2023 (the **Third Closing**").

Under the Amendments to the 2022 Notes, the following amendments to the 2022 Notes will be simultaneously effective upon the closing of the Uplist Transaction. 50% of the then outstanding principal amount of the 2022 Notes shall automatically convert (the "**Automatic Conversion**") into shares of Common Stock, with the conversion price for purposes of such Automatic Conversion being $4.00. Upon the Automatic Conversion and to the extent that the beneficial ownership of a holder of 2022 Notes (a "**Holder**" and, all holders of 2022 Notes together, the "**Holders**") would increase over the applicable Ownership Limitation, the Holder will receive pre-funded warrants (the "**2022 Note Conversion Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**2022 Note Conversion Pre-Funded Warrant Shares**") in lieu of shares of Common Stock otherwise issuable to the Holder in connection with the Automatic Conversion, which 2022 Note Conversion Pre-Funded Warrants shall have an exercise price of $0.001 per share, may be exercised on a cashless basis, shall be exercisable immediately upon issuance and shall contain a customary beneficial ownership limitation provision.

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "**Uplist Conversion Warrant**", and the shares issuable upon exercise thereof, the "**Uplist Conversion Warrant Shares**") to purchase a number of shares of Common Stock equal to 6.3812 times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price per share of $4.00 and shall otherwise be identical to the PIPE Investor Warrants. The Company also agreed in the Amendments to the 2022 Notes to file no later than sixty (60) days after the closing of this offering a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW" (the "**Uplist Conversion Warrants Exchange Offer Obligation**").

The Amendments to the 2022 Notes also prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Accordingly, it is currently anticipated that at the closing of this offering: (i) an aggregate of 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) will be issued upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, representing 50% of the $6,268,501 in principal amount currently outstanding under the 2022 Notes, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in this offering of $4.00 per share; and (ii) the Holders will be issued Uplist Conversion Warrants to purchase an aggregate of 20,000,286 shares of Common Stock, representing 6.3812 multiplied by the $3,134,250 of principal amount converted in the Automatic Conversion.

Additionally, on July 7, 2023, the Company entered into an amendment (the "**Omnibus Amendment to Notes and Warrants**") with the Holders of the 2022 Notes, amending the 2022 Notes and related warrants issued at each of the First Closing, Second Closing, and Third Closing (the "**First Warrants**", "**Second Warrants**" and "**Third Warrants**", respectively, and collectively, the "**2022 Warrants**"). Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes and 2022 Warrants were amended to modify the Most Favored Nation provisions therein to exclude the Bridge Offering.

2022 Notes

The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the issuance date until the 2022 Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes. The 2022 Notes mature January 6, 2024. Any amount of principal or interest on the 2022 Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full. As of October 25, 2023, the outstanding unpaid principal balance including all accrued interest under the 2022 Notes totaled $7,004,722.

The 2022 Notes are convertible into shares of Common Stock at the option of each Holder from the date of issuance at $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision (as defined below)), subject to adjustment, through the later of (i) January 6, 2024 (the "**Maturity Date**") or (ii) the date of payment of the Default Amount (as defined in the 2022 Notes).

The 2022 Notes contain events of default, which include, among other things, (i) the Company's failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our failure to complete an Uplist Transaction by November 15, 2023 and (iii) our default on the Uplist Conversion Warrant Exchange Offer Obligation.

The 2022 Warrants (i) have an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrants if, as a result of the exercise of the 2022 Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. Pursuant to the "**Most Favored Nation Provision**" contained in the 2022 Notes and the 2022 Warrants, as long as the 2022 Notes and 2022 Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes and 2022 Warrants of such more favorable terms, and to use best efforts to effect such terms in the 2022 Notes and 2022 Warrants.

As discussed above, it is currently anticipated that 50% of the of the $6,268,501 unpaid principal balance currently outstanding under the 2022 Notes will convert into 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) in connection with the Automatic Conversion.

Under the Second Amended and Restated Registration Rights Agreement, dated as of May 15, 2023, as amended, the Company is required to file a registration statement registering the securities issued in the Second Closing and Third Closing, including the applicable 2022 Notes and 2022 Warrants, no later than 45 days following the closing of the Uplist Transaction. The Resale Prospectus currently covers the resale of the shares of Common Stock issuable upon the Automatic Conversion, the shares of Common Stock issuable upon conversion of the 2022 Notes at their regular conversion price and the shares of Common Stock issuable upon exercise of the 2022 Warrants.

Series 1 and 2 Convertible Notes

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ('**Series 1 Notes**") and Series 2 Convertible Notes, as amended ("**Series 2 Notes**", and collectively with the Series 1 Notes, the "**Series Convertible Notes**"). The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes, which had an aggregate of $718,918 of principal and interest outstanding at the time of conversion.

As of October 25, 2023, there was $587,959 of principal and accrued interest (through maturity) outstanding under the Series 2 Notes. The Series 2 Notes have a conversion price of $400.00 and allow the Company to convert all obligations thereunder upon the Uplist Transaction, or the maturity date, using such conversion price and multiplying the obligations then outstanding by 4.5. **Accordingly, it is currently anticipated that an aggregate of 6,615 shares of Common Stock will be issued at the closing of this offering upon the conversion of the remaining outstanding amount under the Series 2 Notes.**

Bylaw Amendments

On July 18, 2023, the Board approved an amendment to the Amended and Restated Bylaws of the Company (the "**Bylaw Amendment**"), effective immediately. The Bylaw Amendment amended the Amended and Restated Bylaws (i) to allow stockholders of the Company to take action by written consent without a meeting with not less than the minimum number of votes that would be necessary to take such action if the matter was presented at a meeting of stockholders at which all shares entitled to vote thereon were present and voted, subject to certain limitations and (ii) to provide that in in the absence of a quorum, the chairman of a stockholder meeting can adjourn the meeting, respectively.

Equity Incentive Plan

Effective August 13, 2023, the Board adopted and approved the Amended and Restated 2023 Equity Incentive Plan (the "**2023 Plan**") and reserved 56,896 shares of Common Stock for issuance thereunder to employees, officers, directors and consultants of the Company. The stockholders of the Company approved the plan on August 22, 2023. The Plan has a term of 6 years and is intended to replace the Company's 2013 Stock Incentive Plan, which expired on June 18, 2023.

The general purpose of the 2023 Plan is to provide a means whereby eligible employees, officers, non-employee directors, consultants, advisors, and other individual service providers may develop a sense of proprietorship and personal involvement in the Company's development and financial success, and to encourage them to devote their best efforts to the Company, thereby advancing the Company's interests and the interests of stockholders of the Company. The 2023 Plan permits the Company to grant a variety of forms of awards, including stock options, stock appreciation rights, restricted stock, restricted stock units, and dividend equivalent rights, to allow the Company to adapt its incentive compensation program to meet its needs.

In addition, the number of shares of Common Stock available for issuance under the 2023 Plan will automatically increase on October 1st of each fiscal year of the Company commencing with October 1, 2023, and on each October 1 thereafter until the 6th anniversary of the date of the 2023 Plan's initial adoption by the Board, in an amount equal to five percent (5%) of the total number of shares of Common Stock outstanding on September 30th of the preceding fiscal year. Furthermore, effective at the close of business on the date of the closing (the "**Uplist Date**") of the public offering in connection with which the Common Stock becomes tradeable on a national exchange and on the first day of each fiscal quarter of the Company thereafter until the earlier of (i) the five-year anniversary of the Uplist Date and (ii) October 31, 2028, the number of shares of Common Stock available for issuance under the 2023 Plan shall automatically increase by an amount equal to fifteen percent (15%) of the incremental number of shares of Common Stock, if any, issued by the Company (x) with respect to the "Bridge Offering," including without limitation "Pre-Funded Warrant Shares" and "Common Warrant Shares," the "Uplist Transaction" and/or a "Qualifying Offering" (as such terms are defined in the 2023 Plan), (y) with respect to the Uplist Date, since the date on which the stockholders ratified the 2023 Plan, and (z) with respect to each fiscal quarter thereafter, during the previous fiscal quarter (excluding in each case shares of Common Stock issued pursuant to awards under the 2023 Plan); provided, however, that shares of Common Stock issued in connection with any such Qualifying Offering shall not be taken into account except to the extent, if any, that such shares are issued with respect to shares of Common Stock issued in connection with the Bridge Offering and/or the Uplist Transaction.

The Offering

Units being offered	1,030,303 Units, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance. Each Unit will consist of one share of Common Stock and one Investor Warrant to purchase one share of Common Stock. The Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of Common Stock can be purchased in this offering only with the accompanying Investor Warrants as part of Units (other than pursuant to the underwriters' option to purchase additional shares of Common Stock and/or Investor Warrants), but the components of the Units will be immediately separable and will be issued separately in this offering.
Pre-Funded Units being offered	We are also offering to each purchaser whose purchases of Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding Common Stock immediately following the consummation of this offering, the opportunity to purchase, if the purchaser so chooses, Pre-Funded Units (each Pre-Funded Unit consisting of one Pre-Funded Warrant to purchase one share of Common Stock and one Investor Warrant to purchase one share of Common Stock) in lieu of Units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding Common Stock (or at the election of the purchaser, 9.99%). Each Pre-Funded Warrant contained in a Pre-Funded Unit will be exercisable into one share of Common Stock, exercisable until all of the Pre-Funded Warrants are exercised in full. The purchase price of each Pre-Funded Unit will equal the price per Unit being sold to the public in this offering minus $0.001, and the exercise price of each Pre-Funded Warrant included in the Pre-Funded Unit will be $0.001 per share of Common Stock. This offering also relates to the shares of Common Stock issuable upon exercise of any Pre-Funded Warrants contained in the Pre-Funded Units sold in this offering. For each Pre-Funded Unit we sell, the number of Units we are offering will be decreased on a one-for-one basis. Because we will issue an Investor Warrant as part of each Unit or Pre-Funded Unit, the number of Investor Warrants sold in this offering will not change as a result of a change in the mix of the Units and Pre-Funded Units sold.
Common Stock outstanding prior to the offering(1)	586,195. After giving effect to the closing of the Uplist PIPE, expected to occur immediately prior to the pricing of this offering, and after giving effect to the issuance of the True-Up Shares and True-Up Pre-Funded Warrants at the closing of this offering, and the assumed exercise in full of the Bridge Pre-Funded Warrants, PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and 2022 Note Conversion Pre-Funded Warrants, if any, (collectively, the "**Pro Forma Pre-Funded Warrants**"), but prior to giving effect to the offering, there would be an aggregate of 11,284,187 shares of Common Stock outstanding, before giving effect to the issuance of the Units and Pre-Funded Units in this offering. The exercise of the Pro Forma Pre-Funded Warrants (which have exercise prices of $0.001 or $0.008 and therefore function as common stock equivalents) assumed in the previous sentence is only for illustrative purposes, and there is no assurance as to when, if at all, any of such securities will be exercised.
Common Stock to be outstanding after the offering(1)	4,935,489 shares (5,090,034 shares if the underwriters exercise their option to purchase additional shares in full, and assuming, in each case, no sale of any Pre-Funded Units and no exercise of the Investor Warrants), which takes into account the issuance of an assumed 783,564 shares of Common Stock as a result of the Automatic Conversion under the 2022 Notes, 6,615 shares of Common Stock as a result of the conversion of the Series 2 Notes and 2,528,812 True-Up Shares being issued at the closing of this offering and assumes no issuance of 2022 Note Conversion Pre-Funded Warrants as a result of the Automatic Conversion and no exercise of the PIPE Pre-Funded Warrants and PIPE Investor Warrants to be issued immediately prior to the pricing of this offering or the True-Up Pre-Funded Warrants, Uplist Conversion Warrants and Exchange Investor Warrants to be issued at the closing of this offering. Assuming the exercise in full of the Pro Forma Pre-Funded Warrants, there would be 13,104,669 shares (13,259,214 shares if the underwriters exercise their option to purchase additional shares in full) of Common Stock outstanding after this offering.
Over-allotment Option	We have granted the underwriters an option, exercisable for 45 days after the date of this prospectus, to purchase up to an additional 154,545 shares of Common Stock and/or Investor Warrants to purchase up to an additional 154,545 shares of Common Stock (equal to 15% of the shares of Common Stock (and Pre-Funded Warrants, if any) and Investor Warrants sold in this offering), in any combination, at the public offering price per share of Common Stock and per Investor Warrant, respectively, less the underwriting discounts payable by us, solely to cover over-allotments, if any.
Description of Investor Warrants	Each Unit and each Pre-Funded Unit includes an Investor Warrant to purchase one share of Common Stock. The Investor Warrants will have an assumed exercise price per share of Common Stock of $4.00 (which equals the minimum bid price per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A)), will be immediately separable from the Common Stock or Pre-Funded Warrant, as the case may be, will be exercisable on the date of issuance and will expire five years from the date of issuance. Each Investor Warrant is exercisable for one share of Common Stock, subject to adjustment in the event of stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our Common Stock. A holder may not exercise any portion of an Investor Warrant to the extent that the holder, together with its affiliates and any other person or entity acting as a group, would own more than 4.99% of our outstanding shares of Common Stock after exercise, as such ownership percentage is determined in accordance with the terms of the Investor Warrants, except that upon notice from the holder to us, the holder may waive such limitation up to a percentage not in excess of 9.99% of our outstanding shares of Common Stock. This prospectus also registers up to 1,030,303 shares of Common Stock issuable upon exercise of the Investor Warrants. To better understand the terms of the Investor Warrants, you should carefully read the "**Description of Securities** – **Description of Investor Warrants to be Issued in this Offering**" section of this prospectus. You should also read the form of Investor Warrant, which is filed as an exhibit to the registration statement that includes this prospectus.

Use of proceeds	We estimate that we will receive net proceeds from this offering of approximately $3.1 million (assuming no sale of any Pre-Funded Warrants) or approximately $3.7 million if the underwriters exercise their over-allotment option in full, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance and after deducting the underwriting discounts and commissions and estimating offering expenses payable by us. We intend to use the net proceeds we receive from this offering for product marketing and for general working capital purposes. See "**Use of Proceeds**" beginning on page 41 of this prospectus for more information.
Market for Common Stock	Our Common Stock is traded on the OTCQB under the symbol "ARTH." On November 7, 2023, the closing price of our Common Stock was $6.40 (post-Reverse Split) per share. The public offering price per Unit and Pre-Funded Unit, and the exercise price of the Investor Warrants, as applicable, will be determined between us and the underwriters based on market conditions at the time of pricing, and may be at a discount to the then current market price. Therefore, the recent market price used throughout this preliminary prospectus may not be indicative of the final offering price. We have applied to list our Common Stock on the Nasdaq Capital Market under the symbol "ARTH." No assurance can be given that an active trading market will develop for the Common Stock. We believe that upon the completion of the offering contemplated by this prospectus, we will meet the standards for listing on the Nasdaq Capital Market or an Alternate Exchange. We cannot guarantee that we will be successful in listing our Common Stock on the Nasdaq Capital Market or an Alternate Exchange; however, we will not complete this offering unless we are so listed.
Market for Pre-Funded Warrants	There is no established public trading market for the Pre-Funded Warrants, and we do not expect a market to develop. We do not intend to apply for listing of the Pre-Funded Warrants on any securities exchange or other nationally recognized trading system.
Market for Investor Warrants	There is no established public trading market for the Investor Warrants. We have applied to list the Investor Warrants on the Nasdaq Capital Market under the symbol "ARTHW ." No assurance can be given that such listing will be approved or, if successful, that an active trading market for the Investor Warrants will develop or be sustained.
Risk Factors	See "**Risk Factors**" beginning on page 15 and other information in this prospectus for a discussion of the factors you should consider before you decide to invest in our securities.
Lock-ups	We, our directors and executive officers will enter into customary "lock-up" agreements pursuant to which such persons and entities will agree, for a period of six months after the closing of this offering, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exchangeable for our Common Stock. See "**Underwriting-Lock-Up Agreements**."

(1) Based on 586,195 shares of Common Stock outstanding on October 25, 2023. Excludes, as of such date, (i) options granted to employees, directors and consultants under our 2013 Stock Incentive Plan (the "**2013 Plan**") to purchase up to an aggregate of 12,613 shares of Common Stock at exercise prices ranging from $32.00 to $1,040.00 per share and with a weighted average exercise price of $300.43 per share; (ii) 3,285,387 shares of Common Stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of $8.77 per share (which includes 2,349,826 Common Warrants that will automatically be cancelled and exchanged for 7,049,447 Exchange Investor Warrants at the closing of this offering); (iii) Series 2 Convertible Notes convertible into 6,615 shares of Common Stock at a conversion price of $400.00 per share; (iv) 1,567,127 shares of Common Stock issuable upon regular (non-Automatic) conversion of the 2022 Notes at the conversion price of $4.00 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (v) 1,716,780 shares of Common Stock to be issuable upon exercise at $0.001 per share of the PIPE Pre-Funded Warrants expected to be issued immediately prior to the pricing of this offering; (vi) 1,716,780 shares of Common Stock to be issuable upon exercise at $4.00 per share of the PIPE Investor Warrants expected to be issued immediately prior to the pricing of this offering; (vii) 85,839 shares of Common Stock to be issuable upon exercise at $5.15625 per share of the PIPE Placement Agent Warrants expected to be issued immediately prior to the pricing of this offering; (viii) 2,528,812 True-Up Shares expected to be issued at the closing of this offering; (ix) 5,695,529 shares of Common Stock to be issuable upon exercise at $0.001 of the True-Up Pre-Funded Warrants expected to be issued at the closing of this offering; (x) 20,000,286 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Uplist Conversion Warrants expected to be issued at the closing of this offering; (xi) 7,049,447 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Exchange Investor Warrants expected to be issued at the closing of this offering; (xii) 56,896 shares of Common Stock reserved for future issuance under the 2023 Plan; and (xiii) up to 1,030,303 shares (1,184,848 shares if the underwriters' option to purchase additional Investor Warrants is exercised in full) of Common Stock issuable upon exercise at $4.00 per share of the Investor Warrants to be issued in this offering.

Except as indicated otherwise, the discussion above assumes no sale of any Pre-Funded Units, no issuance of any 2022 Note Conversion Pre-Funded Warrants and no exercise of the underwriters' option to purchase up to 154,545 additional shares of Common Stock and/or Investor Warrants to purchase up to 154,545 additional shares of Common Stock.

RISK FACTORS

Investment in our securities involves a high degree of risk. You should carefully consider the risks that are summarized below and discussed in greater detail in the following pages, together with the other information contained in this prospectus, including our financial statements and the related notes appearing at the end of this prospectus, before making an investment decision. If any of the following risks and uncertainties actually occur, our business, financial condition, and results of operations could be negatively impacted, and you could lose all or part of your investment.

Risk Factor Summary

- There is substantial doubt about our ability to continue as a going concern, and we believe that our current cash on hand as of October 25, 2023 is not sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate the business.
- We have incurred significant losses since inception, we expect to continue to incur losses for the foreseeable future, and we may not generate sufficient revenue to achieve or maintain profitability.
- We will need to raise additional capital, which may not be available to us on acceptable terms, or at all. In addition, the terms of our previous financings could impose additional challenges on our ability to raise funding in the future.
- Our obligations under the First Notes, including our obligation to repay the outstanding balance under the First Notes upon such holder's demand for repayment upon the completion of an Uplist Transaction, are secured by security interests in substantially all of our assets and our failure to comply with the terms and covenants of the First Notes could result in our loss of substantially all of our assets.
- The holders of our 2022 Notes have certain additional rights upon an event of default under such notes, which could harm our business, financial condition, and results of operations and could require us to reduce or cease our operations.
- If we issue additional shares in the future, including issuances of shares upon exercise of our outstanding warrants or conversion of our outstanding convertible notes, our existing stockholders will be significantly diluted and our stock price may be negatively affected.
- If we do not successfully market our products, we will continue to incur losses and will never be profitable.
- Our business may be materially adversely affected by the coronavirus (COVID-19) pandemic. Should the pandemic or its aftereffects continue, our business operations could and will likely be delayed or interrupted.
- Our flagship product is novel without any history of use in the clinical fields in which it is marketed requiring education and training regarding its application to gain and maintain market acceptance by patients, physicians, healthcare payors or others in the medical community.
- Applications for regulatory marketing authorization for commercialization of our additional products or elements of our supply chain may not be accepted, or if accepted, may be voluntarily withdrawn or eventually rejected, and the future success of our business is significantly dependent on the success of our being able to obtain regulatory marketing authorization for our development stage candidates.
- Our additional product candidates are inherently risky because they are based on novel technologies and thus create significant challenges with respect to product development and optimization, engineering, manufacturing, scale-up, quality systems, pre-clinical in vitro and in vivo testing, government regulation and approval, third-party reimbursement and market acceptance.

- Any changes in our supply chain, including to the third-party contract manufacturers, service providers, or other vendors, or in the processes that they employ, could adversely affect us.
- If the FDA or similar foreign agencies or intermediaries impose requirements more onerous than we anticipate, our business could be adversely affected.
- We are subject to extensive and dynamic medical device regulations outside of the United States, which may impede or hinder the approval, marketing authorization or sale of our products and, in some cases, may ultimately result in an inability to obtain approval of certain products or may result in the recall or seizure of previously approved or authorized products.
- Any clinical trials that are planned or are conducted on our flagship product or additional product candidates may not start or may fail. Clinical trials are lengthy, complex and extremely expensive processes with uncertain expenditures and results and frequent failures.
- We cannot market and sell any additional product candidate in the United States or in any other country or region if we fail to obtain the necessary marketing authorization, clearances or certifications from applicable government agencies.
- The flagship product for which we obtained required regulatory marketing authorization is subject to post-approval regulation, and we may be subject to penalties if we fail to comply with such post-approval requirements.
- Use of third parties to manufacture our product and our additional product candidates may increase the risk that preclinical development, clinical development and potential commercialization of our product candidates could be delayed, prevented or impaired.
- We face competition from companies that have greater resources than we do, and we may not be able to effectively compete against these companies.
- If others claim we and/or the parties from whom we license some of our intellectual property are infringing on their intellectual property rights, we may be subject to costly and time-consuming litigation.
- There is not now, and there may not ever be, an active market for our Common Stock, which trades in the over-the-counter market in low volumes and at volatile prices. Although we have applied to list our Common Stock on the Nasdaq Capital Market there is no assurance that our application will be approved.
- Even if this offering is successful and our application to list our Common Stock and Investor Warrants on the Nasdaq Capital Market or an Alternate Exchange is approved, no assurance can be given that an active trading market for our Common Stock or Investor Warrants will develop or be maintained.

 For purposes herein, references to regulatory approval and marketing authorization may be used interchangeably.

Risks Related to our Business, Financial Position and Capital Requirements

There is substantial doubt about our ability to continue as a going concern. Even if this offering is successful, we will need additional funding to continue our operations and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail.

We have only recently commenced commercial sales of our first product, AC5 Advanced Wound System, and we have incurred substantial net losses as a result. We do not believe that our current cash on hand as of October 25, 2023 is sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. Even if this offering is successful, we will need to secure additional resources to support our continued operations.

We have obtained additional cash from debt and equity financings during the last several fiscal quarters to continue operations and fund our planned future operations, which include research and development of our product candidates, steps related to seeking regulatory marketing authorization for our initial product candidates, and planning for their commercialization in the U.S. and Europe. Even with the additional funds received from these financings, there exists substantial doubt about our ability to continue as a going concern. In addition, our plans may change and/or we may use our capital resources more rapidly than we currently anticipate. We presently expect that our expenses will increase in connection with our ongoing activities to support our business operations, inclusive of regulatory submissions, marketing authorization, and commercialization of our product candidates and products, and, therefore, we will require additional funding.

Our future capital requirements will depend on many factors, including:

- the success of our marketing efforts;
- the success of our additional commercialization efforts;
- the scope, progress and results of our research and development collaborations;
- the extent of potential direct or indirect grant funding for our research and development activities;
- the scope, progress, results, costs, timing and outcomes of any regulatory process and clinical trials conducted for any of our product candidates;
- the timing of entering into, and the terms of, any collaboration agreements with third parties relating to any of our product candidates;
- the timing of and the costs involved in obtaining regulatory marketing authorization for our product candidates;
- the costs of operating, expanding and enhancing our operations to support our clinical activities and, if our product candidates are approved, commercialization activities;
- the costs of maintaining, expanding and protecting our intellectual property portfolio, including potential litigation costs and liabilities;
- the costs associated with maintaining and expanding our product pipeline;
- the costs associated with expanding our geographic focus;
- operating revenues, if any, received from sales of our product candidates, if any are approved by the FDA or other applicable regulatory agencies;
- the cost associated with being a public company, including obligations to regulatory agencies, and increased investor relations and corporate communications expenses; and
- the costs of additional general and administrative personnel, including accounting and finance, legal and human resources employees.

We intend to obtain additional financing for our business through public or private securities offerings, the incurrence of additional indebtedness, or some combination of those sources. We may also seek funding through collaborative arrangements with strategic partners if we determine them to be necessary or appropriate, although these arrangements could require us to relinquish rights to our technology or product candidates and could result in our receipt of only a portion of any revenues associated with the partnered product. We cannot provide any assurance that additional financing from these sources will be available on favorable terms, if at all.

In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA, PIPE SPA and 2022 Notes SPA, associated with the 2022 Notes Financing, in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future***" below.

These restrictions and provisions could make it more challenging for us to raise capital through the incurrence of additional debt or through future equity issuances. Further, if we do raise capital through the sale of equity, or securities convertible into equity, the ownership of our then existing stockholders would be diluted, which dilution could be significant depending on the price at which we may be able to sell our securities. Also, if we raise additional capital through the incurrence of indebtedness, we may become subject to covenants restricting our business activities, and the holders of debt instruments may have rights and privileges senior to those of our equity investors. Finally, servicing the interest and principal repayment obligations under any debt facilities that we may enter into in the future could divert funds that would otherwise be available to support research and development, clinical or commercialization activities.

If we are unable to obtain adequate financing on a timely basis or on acceptable terms in the future, we would likely be required to delay, reduce or eliminate one or more of our product development activities, which could cause our business to fail.

We have incurred significant losses since inception. We expect to continue to incur losses for the foreseeable future, and we may never increase revenue or achieve or maintain profitability.

As noted above under the risk factor entitled "***There is substantial doubt about our ability to continue as a going concern***," we have only recently commenced commercial sales of our first product, AC5 Advanced Wound System, and we have incurred substantial net losses as a result. Consequently, we have incurred losses in each year since our inception and we expect that losses will continue to be incurred in the foreseeable future in the operation of our business. To date, we have financed our operations primarily through equity and debt investments by founders, other investors and third parties, and we expect to continue to rely on these sources of funding, to the extent available in the foreseeable future. Losses from operations have resulted principally from costs incurred in research and development programs and from general and administrative expenses, including significant costs associated with establishing and maintaining intellectual property rights, significant legal and accounting costs incurred in connection with both the closing of the Merger and complying with public company reporting and control obligations, and personnel expenses. In addition, we expect to continue to incur additional general and administrative expenses due to the costs associated with being a public company, including obligations to regulatory agencies, and increased investor relations and corporate communications expenses. We have devoted much of our operational effort to date to the research and development of our core technology, including selecting our initial product composition, conducting safety and other related tests, conducting a human trial for safety and performance, developing methods for manufacturing scale-up, reproducibility and validation, and developing and protecting the intellectual property rights underlying our technology platform. We have recently devoted substantially all of our operational effort to continue the ongoing commercialization and market adoption of AC5 Advanced Wound System, our first product.

We expect to continue to incur significant expenses and anticipate that those expenses and losses may increase in the foreseeable future as we:

- commercialize AC5 Advanced Wound System;
- develop our additional product candidates, and the underlying technology, including advancing applications and conducting biocompatibility and other preclinical studies and clinical studies;
- raise capital needed to fund our operations;
- enhance investor relations and corporate communications capabilities;
- conduct clinical trials on products and product candidates;
- attempt to obtain regulatory marketing authorizations for product candidates;
- build relationships with additional contract manufacturing partners, and invest in product and process development through such partners;
- maintain, expand and protect our intellectual property portfolio;
- advance additional product candidates and technologies through our research and development pipeline;
- seek to market selected product candidates, which may require regulatory marketing authorization; and
- hire additional regulatory, clinical, quality control, scientific, financial, and management, consultants and advisors.

To become and remain profitable, we must successfully market AC5 Advanced Wound System and succeed in developing and eventually commercializing other product candidates with significant market potential. This will require us to be successful in a number of challenging activities, including successfully completing preclinical testing and clinical trials of product candidates, obtaining regulatory marketing authorization for our product candidates and manufacturing, marketing and selling any products for which we have or may obtain marketing authorization. We are only in the preliminary stages of many of those activities. We may never succeed in those activities and may never generate sufficient operating revenues to achieve profitability. Even if we do generate operating revenues sufficient to achieve profitability, we may not be able to sustain or increase profitability. Our failure to generate sufficient operating revenues to become and remain profitable would impair our ability to raise capital, expand our business or continue our operations, all of which would depress the price of our Common Stock. A further decline or lack of increase in the price of our Common Stock could cause our stockholders to lose all or a part of their investment in the Company.

The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future.

The Bridge SPA contains certain restrictions on the Company's ability to conduct subsequent sales of its equity securities and certain business activities. In particular, until July 7, 2024, the Company will be prohibited from effecting or entering into agreements to effect any issuance by the Company, or any of its subsidiaries, of Common Stock or Common Stock equivalents (or a combination of units thereof) involving a variable rate transaction. The Uplist PIPE has the effect of extending that prohibition to November 8, 2024 with a similar provision.

The 2022 Notes SPA contains certain restrictions on our ability to conduct subsequent sales of our equity securities and certain business activities. In particular, until the 2022 Notes are paid in full and/or converted in full and the 2022 Warrants are exercised in full, we are prohibited from (i) changing the nature of business, (ii) selling, divesting, acquiring, or changing the structure of any material assets other than in the ordinary course of business; or (iii) negotiating or entering into certain variable rate debt transactions; in each instance without each applicable 2022 Note holder's prior written consent, which shall not be unreasonably withheld. In addition, the 2022 Notes, as amended, prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Our obligations under the First Notes are secured by security interests in substantially all of our assets and our failure to comply with the terms and covenants of the First Notes could result in our loss of substantially all of our assets.

Our obligations under the First Notes and the related transaction documents are secured by a security interest in substantially all of our assets. As a result, if we default on our obligations under such First Notes, the First Note holders could foreclose on the security interests and liquidate some or all of our assets, which would harm our business, financial condition and results of operations and could require us to reduce or cease operations.

In connection with the First Closing, the First Note holders were granted a security interest in substantially all of our assets pursuant to the terms of the Security Agreement. If we fail to make payments on the First Notes when due or otherwise comply with the covenants contained in the First Notes, the First Note holders could declare us in default, in which event such holders would have the right to exercise their rights as a secured creditor with respect to our assets that secure the indebtedness, which would force us to suspend operations.

In addition, the 2022 Notes contain customary events of default, which include, among other things, (i) our failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our insolvency; (iii) delisting of our Common Stock; (iv) our breach of any material covenant or other material term or condition under the 2022 Notes; and (v) our breach of any representations or warranties under the 2022 Notes which cannot be cured within five (5) days. Further, events of default under the 2022 Notes also include (i) the unavailability of Rule 144 at certain times; (ii) our failure to deliver the shares of Common Stock to the 2022 Note holder upon exercise by such holder of its conversion rights under the 2022 Notes; (iii) our loss of the "bid" price for our Common Stock and/or a market and such loss is not cured during the specified cure periods; and (iv) our failure to complete an Uplist Transaction by November 15, 2023.

The 2022 Note holders have certain additional rights upon an event of default under such notes, which could harm our business, financial condition, and results of operations and could require us to reduce or cease our operations.

Under the 2022 Notes, the holders have certain rights upon an event of default. Such rights include that, upon an event of default, the 2022 Notes will become immediately due and payable and we will be obligated to pay to each such note holder an amount equal to the Default Premium multiplied by the sum of the outstanding principal amount of such notes plus any accrued and unpaid interest on the unpaid principal amount of such notes to the date of payment, plus any Default Interest and any other amounts owed to the holder under the SPA, or the Default Amount; *provided that*, upon any subsequent event of default not in connection with the first event of default, such holder shall be entitled to an additional 5% to the Default Premium for each subsequent event of default. At the election of each 2022 Note holder, the Default Amount may be paid in cash or shares of Common Stock equal to the Default Amount divided by the $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) at the time of payment.

In addition, the 2022 Notes are subject to prepayment penalties, subject to adjustment as a result of certain time-based prepayment premiums set forth in such notes; provided, that, the written consent of the lead investor is not required in connection with a prepayment made from the proceeds of an Uplist Transaction. The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from July 6, 2022 until such notes become due and payable on the Maturity Date or upon their conversion, acceleration or by prepayment. Any amount of principal or interest on the 2022 Notes which is not paid when due will bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the Default Interest.

We may not have sufficient funds to pay the Default Amount and, as described above, this could trigger rights under the security interest granted to the holders and result in the foreclosure of their security interests and liquidation of some or all of our assets. The exercise of any of these rights upon an event of default could substantially harm our financial condition, substantially dilute our other stockholders and force us to reduce or cease operations and cause our stockholders to lose all or a part of their investment in the Company.

General economic factors may adversely affect our financial performance.

General economic conditions may adversely affect our financial performance. In the United States, changes in interest rates, changes in fuel and other energy costs, weakness in the housing market, inflation or deflation or expectations of either inflation or deflation, higher levels of unemployment, decreases in discretionary consumer spending or consumer demand, unavailability or limitations of consumer credit, higher consumer debt levels or efforts by consumers to reduce debt levels, higher tax rates and other changes in tax laws, overall economic slowdown, changes in consumer desires affecting demand for the products we sell and other economic factors could adversely affect consumer demand for the products we sell, change the mix of products we sell to a mix with a lower average gross margin and result in slower inventory turnover. Higher interest rates, transportation costs, inflation, higher costs of labor, insurance and healthcare, foreign exchange rates fluctuations, higher tax rates and other changes in tax laws, changes in other laws and regulations and other economic factors in the United States or internationally can increase our cost of sales and operating, selling, general and administrative expenses, decrease sales, and otherwise adversely affect our operations and operating results. These factors affect not only our operations, but also the operations of suppliers from whom we purchase goods and services, a condition that can result in an increase in the cost to us of the goods we sell to customers.

The COVID-19 pandemic could continue to affect our suppliers and employees, and cause disruptions in current and future plans for operations and expansion.

The COVID-19 pandemic may continue to directly and indirectly adversely impact our business, financial condition and operating results. The extent to which this will continue will depend on numerous evolving factors that are highly uncertain, rapidly changing and cannot be predicted with precision or certainty at this time.

Our business may continue to be disrupted due to the costs incurred as a result of additional necessary actions and preparedness plans to help ensure the health and safety of our employees and continued operations, including enhanced cleaning processes, protocols designed to implement appropriate social distancing practices, and/or adoption of additional wage and benefit programs to assist employees. We also cannot predict the effect of the COVID-19 pandemic on our supply chain's reliability and costs.

In addition, our business and operations, and the operations of our suppliers, may continue to be adversely affected by the COVID-19 pandemic. The pandemic, including the related response, could cause disruptions due to potential suspension or slowdown of activities at our third-party suppliers, manufacturing delays, or increased prices implemented by our suppliers. The COVID-19 pandemic has disrupted nearly every aspect of the global supply chain, including the manufacturing or delivery of some of the key supplies used in our tests. We currently utilize third parties to, among other things, manufacture raw materials. If any third party involved in the production of our products, product candidates, or raw materials is adversely impacted by restrictions resulting from the coronavirus outbreak, our supply chain may be disrupted, limiting our ability to manufacture products for research and development operations, clinical trials and, in the case of AC5 Advanced Wound System) and AC5 Topical Hemostat, commercialization.

Finally, while we believe that we currently have sufficient supply of our products to continue commercialization efforts, our products and product candidates or the materials contained therein (such as the Active Pharmaceutical Ingredients ("**APIs**") for our AC5 product line) are manufactured from facilities in areas impacted by the coronavirus, which could result in shortages due to ongoing efforts to address the outbreak. If any of the foregoing were to occur, it could materially adversely affect our future revenues, financial condition, profitability, and cash flows.

Unfavorable global political or economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The global credit and financial markets have experienced severe volatility and disruptions in the past several years. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including our ability to raise additional capital when needed on acceptable terms, if at all. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services.

Geopolitical conflicts could potentially affect our sales and disrupt our operations and could have a material adverse impact on the Company.

Geopolitical conflicts, including the recent war in Ukraine, could adversely impact our operations or those of our customers. The extent to which these events impact our operations and those of our customers will depend on future developments, which are highly uncertain and cannot be predicted with confidence. If the uncertainty surrounding geopolitical conflicts and in the global marketplace continues, or if we, or any of our customers encounter any disruptions to our or their respective operations or facilities, then we or they may be prevented or delayed from effectively operating our or their business, respectively, and the marketing and sale of our products and our financial results could be adversely affected.

Russia's invasion and military attacks on Ukraine have triggered significant sanctions from North American and European leaders. These events are currently escalating and creating increasingly volatile global economic conditions. Related sanctions, export controls or other actions have been or may in the future be initiated by nations including the United States, the European Union or Russia (e.g., potential cyberattacks, disruption of energy flows, etc.), which could adversely affect our business and/or our supply chain and other third parties with whom we conduct business. Furthermore, the current military conflict between Russia and Ukraine could disrupt or otherwise adversely impact our operations and those of third parties upon which we rely. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Our operating history may hinder our ability to successfully meet our objectives.

We are transitioning from being strictly a development stage company subject to the risks, uncertainties and difficulties frequently encountered by early-stage companies in evolving markets to a combination commercial stage and development stage company. Our operations to date have been primarily limited to organizing and staffing, developing and securing our technology and undertaking funding preclinical studies of our lead product candidates, and funding one clinical trial. We have not demonstrated our ability to successfully complete large-scale, pivotal clinical trials, reliably obtain regulatory marketing authorizations, manufacture a commercial scale product or arrange for a third-party to do so on our behalf, and we have only recently begun to generate revenue from commercial sales of our first product, AC5 Advanced Wound System, and there can be no assurance that we will be successful in generating increased revenue.

Because of our limited operating history, we have limited insight into trends that may emerge and affect our business, and errors may be made in developing an approach to address those trends and the other challenges faced by development stage companies. Failure to adequately respond to such trends and challenges could cause our business, results of operations and financial condition to suffer or fail. Further, our limited operating history may make it difficult for our stockholders to make any predictions about our likelihood of future success or viability.

If we are not able to attract and retain qualified management and scientific personnel, we may fail to develop our technologies and product candidates.

Our future success depends to a significant degree on the skills, experience and efforts of the principal members of our scientific and management personnel. These members include Terrence Norchi, MD, our President and Chief Executive Officer. The loss of Dr. Norchi or any of our other key personnel could harm our business and might significantly delay or prevent the achievement of research, development or business objectives. Further, our operation as a public company will require that we attract additional personnel to support the establishment of appropriate financial reporting and internal controls systems. Competition for personnel is intense. We may not be able to attract, retain and/or successfully integrate qualified scientific, financial and other management personnel, which could materially harm our business.

If we fail to properly manage any growth we may experience, our business could be adversely affected.

We anticipate increasing the scale of our operations as we seek to develop our product candidates, including hiring and training additional personnel and establishing appropriate systems for a company with larger operations. The management of any growth we may experience will depend, among other things, upon our ability to develop and improve our operational, financial and management controls, reporting systems and procedures. If we are unable to manage any growth effectively, our operations and financial condition could be adversely affected.

We have identified material weaknesses in our internal control over financial reporting. These material weaknesses could continue to adversely affect our ability to report our results of operations and financial condition accurately and in a timely manner. If we fail to enhance appropriate internal controls in the future, we may not be able to report our financial results accurately, which may adversely affect our stock price and our business

Our management is responsible for establishing and maintaining adequate internal control over financial reporting designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the generally accepted accounting principles generally accepted in the United States of America ("**GAAP**"). As a public company, we are required, on a quarterly basis, to evaluate the effectiveness of our internal controls and to disclose any changes and material weaknesses identified through such evaluation in those internal controls. Our efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and the related regulations regarding our required assessment of our internal controls over financial reporting requires the commitment of significant financial and managerial resources. Internal control over financial reporting has inherent limitations, including human error, the possibility that controls could be circumvented or become inadequate because of changed conditions, and fraud.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Our management identified material weaknesses in our internal control over financial reporting relating to a lack of sufficient resources with an understanding of the technical guidance under GAAP related to accounting for complex financial instruments within the 2022 Notes and certain accounting practices relating to the recording of the insurance premium advanced by a third party. As a result of these material weaknesses, our management concluded that our internal control over financial reporting was not effective as of September 30, 2022.

We are working to remediate the material weaknesses as efficiently and effectively as possible. Accordingly, the Audit Committee in consultation with management has determined that these matters may be best addressed by: (i) reviewing accounting literature and other technical materials to ensure that the appropriate personnel have a full awareness and understanding of the applicable accounting pronouncements and how they are to be implemented; (ii) additional education on new and existing accounting pronouncements and their application and (iii) requiring senior accounting staff and outside consultants with technical accounting experience to review complex transactions to evaluate and approve the accounting treatment of such transactions. Accordingly, the Board has recommended to management and management has agreed that the Company's accounting staff, including its Chief Financial Officer, undertake additional training on an accelerated basis and that such training, in view of the complexity of certain generally accepted accounting principles and other matters be ongoing and engage third party specialists on an as-needed basis to help supplement the Company's internal resources.

If we are unable to enhance effective internal controls, we may not have adequate, accurate or timely financial information, and we may be unable to meet our reporting obligations as a publicly traded company or comply with the requirements of the SEC or the Sarbanes-Oxley Act of 2002. This could result in a restatement of our financial statements, the imposition of sanctions, including the inability of registered broker dealers to make a market in our stock, or investigation by regulatory authorities, all of which is exacerbated by the recent determination of a material weakness related to our internal controls over financial reporting as disclosed herein. Any such action or other negative results caused by our inability to meet our reporting requirements or comply with legal and regulatory requirements or by disclosure of an accounting, reporting or control issue could adversely affect the trading price of our stock and our business.

We rely significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm our ability to operate our business effectively.

We maintain sensitive data pertaining to our Company on our computer networks, including information about our research and development activities, our intellectual property and other proprietary business information. Our internal computer systems and those of third parties with which we contract may be vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures, despite the implementation of security measures. System failures, accidents or security breaches could cause interruptions to our operations, including material disruption of our research and development activities, result in significant data losses or theft of our intellectual property or proprietary business information, and could require substantial expenditures to remedy. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications or inappropriate disclosure of confidential or proprietary information, we could incur liability and our research and development programs could be delayed, any of which would harm our business and operations.

Legal, political and economic uncertainty surrounding the exit of the United Kingdom from the European Union is a source of instability and uncertainty.

Legal, political and economic uncertainty surrounding the exit of the United Kingdom from the European Union ("**Brexit**") is a source of instability and uncertainty.

The uncertainty concerning the U.K's legal, political and economic relationship with the E.U. after the transition period may be a source of instability in the international markets, create significant currency fluctuations, and/or otherwise adversely affect trading agreements or similar cross-border co-operation arrangements (whether economic, tax, fiscal, legal, regulatory or otherwise).

These developments, or the perception that any of them could occur, have had, and may continue to have, a significant adverse effect on global economic conditions and the stability of global financial markets, and could significantly reduce global market liquidity and limit the ability of key market participants to operate in certain financial markets. In particular, it could also lead to a period of considerable uncertainty in relation to the U.K. financial and banking markets, as well as on the regulatory process in Europe. Asset valuations, currency exchange rates and credit ratings may also be subject to increased market volatility.

If the U.K. and the E.U. are unable to negotiate acceptable trading and customs terms or if other E.U. Member States pursue withdrawal, barrier-free access between the U.K. and other E.U. Member States or among the European Economic Area ("**E.E.A.**") overall could be diminished or eliminated. The long-term effects of Brexit will depend on any agreements (or lack thereof) between the U.K. and the E.U. and, in particular, any arrangements for the U.K. to retain access to E.U. markets after the transition period. Such a withdrawal from the E.U. is unprecedented, and it is unclear how the U.K. access to the European single market for goods, capital, services and labor within the E.U., or single market, and the wider commercial, legal and regulatory environment, will impact our U.K. operations.

We may also face new regulatory costs and challenges that could have an adverse effect on our operations and development programs. For example, the U.K. could lose the benefits of global trade agreements negotiated by the E.U. on behalf of its members, which may result in increased trade barriers that could make our doing business in the E.U. and the E.E.A. more difficult. There may continue to be economic uncertainty surrounding the consequences of Brexit, which could adversely affect our financial condition, results of operations, cash flows and market price of our Common Stock.

Risks Related to the Development and Commercialization of our Product Candidates

The commercial success of AC5 Advanced Wound System will depend upon the degree of its market acceptance by patients, physicians, healthcare payors and others in the medical community. If AC5 Advanced Wound System does not achieve an adequate level of market acceptance, we may not generate sufficient revenues to achieve or maintain profitability.

AC5 Advanced Wound System is a novel use in the clinical fields in which it is marketed and may not gain or maintain market acceptance by patients, physicians, healthcare payors or others in the medical community. Additionally, we believe that we will need to educate physicians and other healthcare providers about AC5 Advanced Wound System in order to for these providers to administer AC5 Advanced Wound System. If we are unsuccessful in educating these practitioners about AC5 Advanced Wound System, we do not expect to achieve an appropriate level of market acceptance for AC5 Advanced Wound System. We could incur substantial and unanticipated additional expense in an effort to increase market acceptance, which would increase the cost of commercializing AC5 Advanced Wound System and could limit its commercial success and result in lower-than-expected revenues. We believe the degree of market acceptance of AC5 Advanced Wound System will depend on a number of factors, including:

- its efficacy and potential advantages over other treatments,
- the extent to which physicians are successful in treating patients with other products or treatments,
- the extent to which physicians and patients experience similar or improved clinical results to that reported on the approved product labeling,
- market acceptance of the cost at which we sell AC5 Advanced Wound System,
- the timing of the release of competitive products or treatments,
- our marketing and sales resources, the quantity of our supplies of AC5 Advanced Wound System and our ability to establish a distribution infrastructure for AC5 Advanced Wound System, and
- whether third-party and government payors cover or reimburse for AC5 Advanced Wound System, and if so, to what extent and in what amount.

If market acceptance of AC5 Advanced Wound System is adversely affected by any of these or other factors, then sales of AC5 Advanced Wound System may be reduced and our business will be materially harmed.

We are seeking reimbursement arrangements with privately managed care organizations and government payors and additional third-party payors. If we are unable to obtain adequate reimbursement from third-party payors, or acceptable prices, for AC5 Advanced Wound System, our revenues and prospects for profitability will suffer.

Our future revenues and ability to become profitable will depend heavily upon the availability of adequate reimbursement for the use of AC5 Advanced Wound System from government-funded and private third-party payors. Reimbursement by a third-party payor depends on a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan,
- safe, effective and medically necessary,
- appropriate for the specific patient,
- cost effective, and
- neither experimental nor investigational.

Obtaining reimbursement approval for AC5 Advanced Wound System from each government-funded and private third-party payor is a time-consuming and costly process, which in some cases requires us to provide to the payor supporting scientific, clinical and cost-effectiveness data for AC5 Advanced Wound System's use. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement.

Even when a third-party payor determines that a product is generally eligible for reimbursement, third-party payors may impose coverage limitations that preclude payment for some product uses that are approved by the FDA or similar authorities or impose patient co-insurance or co-pay amounts that may result in lower market acceptance and which would lower our revenues. Some payors establish prior authorization programs and procedures requiring physicians to document several different parameters, which may impede patient access to therapy. Moreover, eligibility for coverage does not necessarily mean that AC5 Advanced Wound System will be reimbursed in all cases or at a rate that allows us to sell AC5 Advanced Wound System at an acceptable price adequate to make a profit or even cover our costs. If we are not able to obtain coverage and adequate reimbursement promptly from third-party payors for AC5 Advanced Wound System, our ability to generate revenues and become profitable will be compromised.

The scope of coverage and payment policies varies among private third-party payors, including indemnity insurers, employer group health insurance programs and managed care plans. These third-party payors may base their coverage and reimbursement on the coverage and reimbursement rate paid by carriers for Medicare beneficiaries, which are traditionally at a substantially discounted rate. Furthermore, many such payors are investigating or implementing methods for reducing healthcare costs, such as the establishment of capitated or prospective payment systems. Cost containment pressures have led to an increased emphasis on the use of cost-effective products by healthcare providers. If third-party payors do not provide adequate coverage or reimbursement for AC5 Advanced Wound System, it could have a negative effect on our revenues, results of operations and liquidity.

Applications for regulatory marketing authorization for commercialization of our additional product candidates or elements of our supply chain may not be accepted, or if accepted, may be voluntarily withdrawn or eventually rejected, and the future success of our business is significantly dependent on the success of our being able to obtain regulatory marketing authorization for our development stage candidates.

For example, on July 17, 2017, we filed a 510(k) notification with the FDA for AC5 Topical Gel. As previously announced on December 18, 2017, we voluntarily withdrew the submission after receiving a communication from the FDA near the end of the agency's 90-day review period for a final decision on 510(k) notifications. The communication contained questions for which a comprehensive response could not be provided in the limited review time remaining on the submission. Given that it was not possible to respond in the time available, the Company made the decision to withdraw the 510(k) notification but noted at the time that it remained committed to continued collaboration with the FDA to appropriately address the outstanding questions and planned to submit a new 510(k) notification as soon as possible following further discussion with the agency. On March 12, 2018, we announced that we were utilizing the FDA's pre-submission process to submit a proposed development strategy to the FDA to address the agency's comments on our 510(k) notification. As indicated in that March 12, 2018, announcement, we determined that providing additional data to the FDA would be the most expeditious path forward for addressing the FDA's comments, subject to any further comments that we may receive from the FDA.

On May 8, 2018, we announced that the Company would initiate the previously disclosed study designed to address FDA comments on Arch's previous 510(k) notification for our AC5 Topical Gel. The agency provided feedback via the pre-submission process and indicated that the proposed study design was acceptable to support our future marketing application. On June 15, 2018, we further announced that we completed enrollment for our human skin sensitization study and that applications of our AC5 Topical Gel were underway for all subjects.

On October 1, 2018, we announced that the Company submitted a 510(k) notification to the FDA for our AC5 Topical Gel (AC5) and received acknowledgment from the FDA that the submission has been received. On December 17, 2018, we announced that the 510(k) premarket notification for AC5 Topical Gel has been reviewed and cleared by the FDA.

Our business plan is dependent on the success of our development stage product candidates.

Our business is currently focused almost entirely on the development and commercialization of our initial product candidates and products ("**AC5 Devices**"). Our reliance on AC5 Devices means that, if we are not able to obtain both regulatory marketing authorization and market acceptance of those product candidates, our chances for success will be significantly reduced. We are also less likely to withstand competitive pressures if any of our competitors develop and obtain regulatory marketing authorization for similar products or for products that may be more attractive to the market. Our current dependence on AC5 Devices increases the risk that our business will fail if our development efforts for those products experience delays or other obstacles or are otherwise not successful.

The Chemistry, Manufacturing and Control ("CMC") process for our commercial product and product candidates may be challenging.

Because of the complexity of our lead product candidates, the CMC process, including but not limited to product scale-up activities and cGMP manufacturing for human use, may be difficult to complete successfully within the parameters required by the FDA or its foreign counterparts. Peptide formulation optimization is particularly challenging, and any delays could negatively impact our ability to conduct clinical trials and our subsequent commercialization timeline. Furthermore, we have, and the third parties with whom we may establish relationships may also have, limited experience with attempting to commercialize a self-assembling peptide as a medical device, which increases the risks associated with completing the CMC process successfully, on time, or within the projected budget. Failure to complete the CMC process successfully would impact our ability to complete product development activities, such as conducting clinical trials and submitting applications for regulatory approval, which could affect the long-term viability of our business.

Our AC5 Devices are inherently risky because they are based on novel technologies.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of AC5 Devices creates significant challenges with respect to product development and optimization, engineering, manufacturing, scale-up, quality systems, pre-clinical in vitro and in vivo testing, government regulation and approval, third-party reimbursement and market acceptance. Our failure to overcome any one of those challenges could harm our operations, commercialization efforts, ability to complete additional clinical trials, and overall chances for success.

Any changes in our supply chain, including to the third-party contract manufacturers, service providers, or other vendors, or in the processes that they employ could adversely affect us.

We are dependent on third parties in our supply chain, including manufacturers, service providers, and other vendors, and the processes that they employ to make major and minor components of our products, and this dependence exposes us to risks associated with regulatory requirements, delivery schedules, manufacturing capability, quality control, quality assurance and costs. We make periodic changes within our supply chain, for example, as our business needs evolve; and/or if a third party does not perform as agreed or desired; and/or if we decide to add an additional manufacturer, service provider, or vendor where we were previously single sourced; and/or if processes are altered to meet evolving scale requirements. For instance, the Company harmonized its U.S. and European product supply chains by adding a supplier and additional manufacturing processes to the list of approved suppliers and processes for the production of AC5 Advanced Wound System that is commercially available in the United States. The Company filed documentation with the FDA related to these supply chain changes and announced on March 23, 2020, that the FDA provided the required clearance to market with the supply chain and manufacturing process changes. We cannot yet provide assurance that the changes or resulting product will prove acceptable to us.

The manufacturing, production, and sterilization methods that we intend to be utilized are detailed and complex and are a difficult process to manage.

We intend to utilize third-party manufacturers to manufacture and sterilize our products. We believe that our proposed manufacturing methods make our choice of manufacturer and sterilizer critical, as they must possess sufficient expertise in synthetic organic chemistry and device manufacturing. If such manufacturers are unable to properly manufacture to product specifications or sterilize our products adequately, that could severely limit our ability to market our products.

Compliance with governmental regulations regarding the treatment of animals used in research could increase our operating costs, which would adversely affect the commercialization of our technology.

The Animal Welfare Act ("**AWA**") is the federal law that covers the treatment of certain animals used in research. Currently, the AWA imposes a wide variety of specific regulations that govern the humane handling, care, treatment and transportation of certain animals by producers and users of research animals, most notably relating to personnel, facilities, sanitation, cage size, and feeding, watering and shipping conditions. Third parties with whom we contract are subject to registration, inspections and reporting requirements under the AWA. Furthermore, some states have their own regulations, including general anti-cruelty legislation, which establish certain standards in handling animals. Comparable rules, regulations, and/or obligations exist in many foreign jurisdictions. If our contractors or we fail to comply with regulations concerning the treatment of animals used in research, we may be subject to fines and penalties and adverse publicity, and our operations could be adversely affected.

If the FDA or similar foreign agencies or intermediaries impose requirements more onerous than we anticipate, our business could be adversely affected.

The FDA and other regulatory authorities or related bodies separately determine the classification of our products and product candidates. The development plan for our lead product candidates is based on our anticipation of pursuing the medical device regulatory pathway, and in February 2015 we received confirmation from The British Standards Institution ("**BSI**"), a European notified body (which is a private commercial entity designated by the national government of a European Union ("**EU**") member state as being competent to make independent judgments about whether a medical device complies with applicable regulatory requirements), confirmed that AC5 Topical Hemostat fulfills the definition of a medical device within the EU, and it was classified as such in consideration of the CE mark, receipt of which was announced by the Company on April 13, 2020. The FDA also determined AC5 Topical Gel, which was later renamed AC5 Advanced Wound System, to be a medical device. If the FDA or similar foreign agencies or intermediaries deem our products to be a member of a category other than a medical device, such as a drug or biologic, or impose additional requirements on our pre-clinical and clinical development than we presently anticipate, financing needs would increase, the timeline for product approval would lengthen, the program complexity and resource requirements world increase, and the probability of successfully commercializing a product would decrease. Any or all of those circumstances would materially adversely affect our business.

We are subject to extensive and dynamic medical device regulations outside of the United States, which may impede or hinder the approval, or sale of our products and, in some cases, may ultimately result in an inability to obtain approval of certain products or may result in the recall or seizure of products that were previously approved.

In the European Union, we are required to comply with applicable medical device directives, including the Medical Devices Directive, and obtain CE mark in order to market medical device products. The CE mark is applied following approval from an independent notified body or declaration of conformity. As is the case in the United States, the process of obtaining marketing approval or clearance from comparable agencies in foreign countries for new products, or with respect to enhancements or modifications to existing products, could:

- take a significant period of time;
- require the expenditure of substantial resources;
- involve rigorous pre-clinical and clinical testing;
- require extensive post-marketing surveillance;
- require changes to products; and
- result in limitations on the indicated uses of products.

In addition, exported devices are subject to the regulatory requirements of each country to which the device is exported. Most foreign countries possess medical devices regulations and require that they be applied to medical devices before they can be commercialized.

There can be no assurance that we will receive the required approvals for our products on a timely basis or that any approval will not be subsequently withdrawn or conditioned upon extensive post-market study requirements.

Our global regulatory environment is becoming increasingly stringent and unpredictable, which could increase the time, cost and complexity of obtaining marketing authorization for our products, as well as the clinical and regulatory costs of supporting those approvals. Several countries that did not have regulatory requirements for medical devices have established such requirements in recent years and other countries have expanded existing regulations. Certain regulators are exhibiting less flexibility by requiring, for example, the collection of local preclinical and/or clinical data prior to approval. While harmonization of global regulations has been pursued, requirements continue to differ significantly among countries. We expect the global regulatory environment to continue to evolve, which could impact our ability to obtain future approvals for our products and increase the cost and time to obtain such approvals. By way of example, the European Union regulatory bodies recently implemented a new Medical Device Regulation ("**MDR**"). The MDR changes several aspects of the existing regulatory framework, such as clinical data requirements, and introduces new ones, such as Unique Device Identification ("**UDI**"). We, and the Notified Bodies who will oversee compliance to the new MDR, face uncertainties in the upcoming years as the MDR is rolled out and enforced, creating risks in several areas, including the CE mark process, data transparency and application review timetables.

If we are not able to secure and maintain relationships with third parties that are capable of conducting clinical trials on our product candidates and support our regulatory submissions, our product development efforts, and subsequent marketing authorization could be adversely impacted.

Our management has limited experience in conducting preclinical development activities and clinical trials. As a result, we have relied and will need to continue to rely on third-party research institutions, organizations and clinical investigators to conduct our preclinical and clinical trials and support our regulatory submissions. If we are unable to reach agreement with qualified research institutions, organizations and clinical investigators on acceptable terms, or if any resulting agreement is terminated prior to the completion of our clinical trials, then our product development efforts could be materially delayed or otherwise harmed. Further, our reliance on third parties to conduct our clinical trials and support our regulatory submissions will provide us with less control over the timing and cost of those trials, the ability to recruit suitable subjects to participate in the trials, and the timing, cost, and probability of success for the regulatory submissions. Moreover, the FDA and other regulatory authorities require that we comply with standards, commonly referred to as good clinical practices ("**GCP**"), for conducting, recording and reporting the results of our preclinical development activities and our clinical trials, to assure that data and reported results are credible and accurate and that the rights, safety and confidentiality of trial participants are protected. Additionally, both we and any third-party contractor performing preclinical and clinical studies are subject to regulations governing the treatment of human and animal subjects in performing those studies. Our reliance on third parties that we do not control does not relieve us of those responsibilities and requirements. If those third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical development activities or clinical trials in accordance with regulatory requirements or stated protocols, we may not be able to obtain, or may be delayed in obtaining, marketing authorization for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. Any of those circumstances would materially harm our business and prospects.

Any clinical trials that are planned or are conducted on our flagship product and additional product candidates may not start or may fail.

Clinical trials are lengthy, complex and extremely expensive processes with uncertain expenditures and results and frequent failures. While we have completed our first clinical trial in Western Europe, clinical trials that are planned or which have or shall commence for any of our product candidates could be delayed or fail for a number of reasons, including if:

- FDA or other regulatory authorities, or other relevant decision-making bodies do not grant permission to proceed or place a trial on clinical hold due to safety concerns or other reasons;
- sufficient suitable subjects do not enroll, enroll more slowly than anticipated or remain in our trials;
- we fail to produce necessary amounts of the product or product candidate;
- subjects experience an unacceptable rate of efficacy of the product or product candidate;
- subjects experience an unacceptable rate or severity of adverse side effects, demonstrating a lack of safety of the product or product candidate;
- any portion of the trial or related studies produces negative or inconclusive results or other adverse events;
- reports from preclinical or clinical testing on similar technologies and products raise safety and/or efficacy concerns;
- third-party clinical investigators lose their licenses or permits necessary to perform our clinical trials, do not perform their clinical trials on the anticipated schedule or consistent with the clinical trial protocol, GCP or regulatory requirements, or other third parties do not perform data collection and analysis in a timely or accurate manner;
- inspections of clinical trial sites by the FDA or an institutional review board ("**IRB**") or other applicable regulatory authorities find violations that require us to undertake corrective action, suspend or terminate one or more testing sites, or

- prohibit us from using some or all of the resulting data in support of our marketing applications with the FDA or other applicable agencies;
- manufacturing facilities of our third-party manufacturers are ordered by the FDA or other government or regulatory authorities to temporarily or permanently shut down due to violations of cGMP or other applicable requirements;
- third-party contractors become debarred or suspended or otherwise penalized by the FDA or other government or regulatory authorities for violations of regulatory requirements;
- the FDA or other regulatory authorities impose requirements on the design, structure or other features of the clinical trials for our product candidates that we and/or our third-party contractors are unable to satisfy;
- one or more IRB refuses to approve, suspends or terminates a trial at an investigational site, precludes enrollment of additional subjects, or withdraws its approval of the trial;
- the FDA or other regulatory authorities seek the advice of an advisory committee of physician and patient representatives that may view the risks of our product candidates as outweighing the benefits;
- the FDA or other regulatory authorities require us to expand the size and scope of the clinical trials, which we may not be able to do; or
- the FDA or other regulatory authorities impose prohibitive post-marketing restrictions on any of our product candidates that attain marketing authorization.

Any delay or failure of one or more of our clinical trials may occur at any stage of testing. Any such delay could cause our development costs to materially increase, and any such failure could significantly impair our business plans, which would materially harm our financial condition and operations.

We cannot market and sell any additional product candidate in the U.S. or in any other country or region if we fail to obtain the necessary marketing authorization, clearances or certifications from applicable government agencies.

We cannot sell our additional product candidates in any country until regulatory agencies grant marketing approval, clearance or other required certification(s). The process of obtaining such approval is lengthy, expensive and uncertain. If we are able to obtain such approvals for our lead product candidate or additional product candidates we may pursue, which we may never be able to do, it would likely be a process that takes many years to achieve.

To obtain marketing approvals in the U.S. for our product candidates, we believe that we must, among other requirements, complete carefully controlled and well-designed clinical trials sufficient to demonstrate to the FDA that the product candidate is safe and effective for each indication for which we seek approval. As described above, many factors could cause those trials to be delayed or to fail.

We believe that the pathway to marketing approval in the U.S. for our lead product candidate for internal use will likely be classified as a Class III medical device and require the process of FDA Premarket Approval (“**PMA**”). This approval pathway can be lengthy and expensive and is estimated to take from one to three years or longer from the time the PMA application is submitted to the FDA until approval is obtained, if approval can be obtained at all.

Similarly, to obtain approval to market our product candidates outside of the U.S., we will need to submit clinical data concerning our product candidates to and receive marketing approval or other required certifications from governmental or other agencies in those countries, which in certain countries includes approval of the price we intend to charge for a product. For instance, in order to obtain the certification needed to market our lead product candidate in the EU, we believe that we will need to obtain a CE mark for the product, which entails scrutiny by applicable regulatory agencies and bears some similarity to the PMA process, including completion of one or more successful clinical trials.

We may encounter delays or rejections if changes occur in regulatory agency policies, if difficulties arise within regulatory or related agencies such as, for instance, any delays in their review time, or if reports from preclinical and clinical testing on similar technology or products raise safety and/or efficacy concerns during the period in which we develop a product candidate or during the period required for review of any application for marketing approval or certification.

Any difficulties we encounter during the approval or certification process for any of our product candidates would have a substantial adverse impact on our operations and financial condition and could cause our business to fail.

We cannot guarantee that we will be able to effectively market our product candidates.

A significant part of our success depends on the various marketing strategies we plan to implement. Our business model has historically focused solely on product development, and we have never attempted to market any product. There can be no assurance as to the success of any such marketing strategy that we develop or that we will be able to build a successful sales and marketing organization. If we cannot effectively market those products we seek to market directly, such products' prospects will be harmed.

AC5 Advanced Wound System and any other product for which we obtain required regulatory marketing authorization are subject to post-approval regulation, and we may be subject to penalties if we fail to comply with such post-approval requirements.

AC5 Advanced Wound System and any other product for which we are able to obtain marketing approval or other required certifications, and for which we are able to obtain approval of the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and comparable foreign regulatory authorities, including through periodic inspections. These requirements include, without limitation, submissions of safety and other post-marketing information and reports, registration requirements, cGMP requirements relating to quality control, quality assurance and corresponding maintenance of records and documents. Maintaining compliance with any such regulations that may be applicable to us or our product candidates in the future would require significant time, attention and expense. Even if marketing approval of a product is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or other conditions of approval or may contain requirements for costly and time-consuming post-marketing approval testing and surveillance to monitor the safety or efficacy of the product. Discovery after approval of previously unknown problems with any approved product candidate or related manufacturing processes, or failure to comply with regulatory requirements, may result in consequences to us such as:

- restrictions on the marketing or distribution of a product, including refusals to permit the import or export of the product;
- the requirement to include warning labels on the products;
- withdrawal or recall of the products from the market;
- refusal by the FDA or other regulatory agencies to approve pending applications or supplements to approved applications that we may submit;
- suspension of any ongoing clinical trials;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of marketing approvals or certifications; or
- civil or criminal penalties.

If any of our product candidates achieve required regulatory marketing approvals or certifications in the future, the subsequent occurrence of any such post-approval consequences would materially adversely affect our business and operations.

Current or future legislation may make it more difficult and costly for us to obtain marketing approval or other certifications of our product candidates.

In 2007, the Food and Drug Administration Amendments Act of 2007 ("**FDAAA**") was adopted. This legislation grants significant powers to the FDA, many of which are aimed at assuring the safety of medical products after approval. For example, the FDAAA grants the FDA authority to impose post-approval clinical study requirements, require safety-related changes to product labeling and require the adoption of complex risk management plans. Pursuant to the FDAAA, the FDA may require that a new product be used only by physicians with specialized training, only in specified health care settings, or only in conjunction with special patient testing and monitoring. The legislation also includes requirements for disclosing clinical study results to the public through a clinical study registry, and renewed requirements for conducting clinical studies to generate information on the use of products in pediatric patients. Under the FDAAA, companies that violate these laws are subject to substantial civil monetary penalties. The requirements and changes imposed by the FDAAA, or any other new legislation, regulations or policies that grant the FDA or other regulatory agencies additional authority that further complicates the process for obtaining marketing approval and/or further restricts or regulates post-marketing approval activities, could make it more difficult and more costly for us to obtain and maintain approval of any of our product candidates.

Public perception of ethical and social issues may limit or discourage the type of research we conduct.

Our clinical trials involve human subjects, and third parties with whom we contract also conduct research involving animal subjects. Governmental authorities could, for public health or other purposes, limit the use of human or animal research or prohibit the practice of our technology. Further, ethical and other concerns about our or our third-party contractors' methods, particularly the use of human subjects in clinical trials or the use of animal testing, could delay our research and preclinical and clinical trials, which would adversely affect our business and financial condition.

Use of third parties to manufacture our additional product candidates may increase the risk that preclinical development, clinical development and potential commercialization of our product candidates could be delayed, prevented or impaired.

We have limited personnel with experience in medical device development and manufacturing, do not own or operate manufacturing facilities, and generally lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We currently outsource all or most of the clinical and commercial manufacturing and packaging of our product candidates to third parties. However, we have not established long-term agreements with any third-party manufacturers for the supply of any of our product candidates. There are a limited number of manufacturers that operate under cGMP regulations and that are capable of and willing to manufacture our lead product candidates utilizing the manufacturing methods that are required to produce our product candidates, and our product candidates will compete with other product candidates for access to qualified manufacturing facilities. If we have difficulty locating third-party manufacturers to develop our product candidates for preclinical and clinical work, then our product development programs will experience delays and otherwise suffer. We may also be unable to enter into agreements for the commercial supply of products with third-party manufacturers in the future or may be unable to do so when needed or on acceptable terms. Any such events could materially harm our business.

Reliance on third-party manufacturers entails risks to our business, including without limitation:

- the failure of the third-party to maintain regulatory compliance, quality assurance, and general expertise in advanced manufacturing techniques and processes that may be necessary for the manufacture of our product candidates;
- limitations on supply availability resulting from capacity and scheduling constraints of the third parties;
- failure of the third-party manufacturers to meet the demand for the product candidate, either from future customers or for preclinical or clinical trial needs;
- the possible breach of the manufacturing agreement by the third-party; and
- the possible termination or non-renewal of the agreement by the third-party at a time that is costly or inconvenient for us.

The failure of any of our contract manufacturers to maintain high manufacturing standards could result in harm to clinical trial participants or patients using the products. Such failure could also result in product liability claims, product recalls, product seizures or withdrawals, delays or failures in testing or delivery, cost overruns or other problems that could seriously harm our business or profitability. Further, our contract manufacturers will be required to adhere to FDA and other applicable regulations relating to manufacturing practices. Those regulations cover all aspects of the manufacturing, testing, quality control and recordkeeping relating to our product candidates and any products that we may commercialize in the future. The failure of our third-party manufacturers to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval or other required certifications of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business, financial condition and operations.

Materials necessary to manufacture our product candidates may not be available on time, on commercially reasonable terms, or at all, which may delay or otherwise hinder the development and commercialization of those products and product candidates.

We rely on the manufacturers of our product and product candidates to purchase from third-party suppliers the materials necessary to produce the compounds for preclinical and clinical studies and may continue to rely on those suppliers for commercial distribution if we obtain marketing approval or other required certifications for any of our product candidates. The materials to produce our products may not be available when needed or on commercially reasonable terms, and the prices for such materials may be susceptible to fluctuations. We do not have any control over the process or timing of the acquisition of these materials by our manufacturers. Moreover, we currently do not have any agreements relating to the commercial production of any of these materials. If these materials cannot be obtained for our preclinical and clinical studies, product testing and potential regulatory marketing authorization of our product candidates will be delayed, which would significantly impact our ability to develop our product candidates and materially adversely affect our ability to meet our objectives and obtain operations success.

We may not be successful in maintaining or establishing collaborations, which could adversely affect our ability to develop and, if required regulatory authorizations are obtained, commercialize our product candidates.

If required regulatory authorizations are obtained to market any of our product candidates, then we may consider entering into additional collaboration arrangements with medical technology, pharmaceutical or biotechnology companies and/or seek to establish strategic relationships with marketing partners for the development, sale, marketing and/or distribution of our products within or outside of the U.S. If we elect to expand our current relationships or seek additional collaborators in the future but are unable to reach agreements with such other collaborators, as applicable, then we may fail to meet our business objectives for the affected product or program. Moreover, collaboration arrangements are complex and time consuming to negotiate, document and implement, and we may not be successful in our efforts, if any, to establish and implement additional collaborations or other alternative arrangements. The terms of any collaboration or other arrangements that we establish may not be favorable to us, and the success of any such collaboration will depend heavily on the efforts and activities of our collaborators. Any failure to engage successful collaborators could cause delays in our product development and/or commercialization efforts, which could harm our financial condition and operational results.

We compete with other pharmaceutical and medical device companies, including companies that may develop products that make our product and product candidates less attractive or obsolete.

The medical device, pharmaceutical and biotechnology industries are highly competitive. If our product candidates become available for commercial sale, we will compete in that competitive marketplace. There are several products on the market or in development that could be competitors with our lead product candidates. Further, most of our competitors have greater resources or capabilities and greater experience in the development, approval and commercialization of medical devices or other products than we do. We may not be able to compete successfully against them. We also compete for funding with other companies in our industry that are focused on discovering and developing novel improvements in surgical bleeding prevention.

We anticipate that competition in our industry will increase. In addition, the healthcare industry is characterized by rapid technological change, resulting in new product introductions and other technological advancements. Our competitors may develop and market products that render our lead product candidate or any future product candidate we may seek to develop non-competitive or otherwise obsolete. Any such circumstances could cause our operations to suffer.

If we fail to generate market acceptance of our product and product candidates and establish programs to educate and train surgeons as to the distinctive characteristics of our product and product candidates, we will not be able to generate revenues on our product candidates.

Acceptance in the marketplace of AC5 Advanced Wound System and our lead product candidates depends in part on our and our third-party contractors' ability to establish programs for the training of surgeons in the proper usage of those product candidates, which will require significant expenditure of resources. Convincing surgeons to dedicate the time and energy necessary to properly train to use new products and techniques is challenging, and we may not be successful in those efforts. If surgeons are not properly trained, they may ineffectively use our product candidates. Such misuse could result in unsatisfactory patient outcomes, patient injury, negative publicity or lawsuits against us. Accordingly, even if our product candidates are superior to alternative treatments, our success will depend on our ability to gain and maintain market acceptance for those product candidates among certain select groups of the population and develop programs to effectively train them to use those products. If we fail to do so, we will not be able to generate revenue from product sales and our business, financial condition and results of operations will be adversely affected.

The use of our product and product candidates in human subjects may expose us to product liability claims, and we may not be able to obtain adequate insurance or otherwise defend against any such claims.

We face an inherent risk of product liability claims and currently have product liability and clinical trial liability coverage. If claims against us exceed any applicable insurance coverage we may obtain, then our business could be adversely impacted. Regardless of whether we would be ultimately successful in any product liability litigation, such litigation could consume substantial amounts of our financial and managerial resources, which could significantly harm our business.

Risks Related to our Intellectual Property

If we are unable to obtain and maintain protection for intellectual property rights that we own, seek, or have licensed from other parties, the value of our technology and products will be adversely affected.

Our success will depend in large part on our ability to obtain and maintain protection in the U.S. and other countries for the intellectual property rights covering or incorporated into our technology and products. The ability to obtain patents covering technology in the field of medical devices generally is highly uncertain and involves complex legal, technical, scientific and factual questions. We may not be able to obtain and maintain patent protection relating to our technology or products. Many of our owned or licensed patent applications are pending. Even if issued, patents issued or licensed to us may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, or determined not to cover our product candidates or our competitors' products, which could limit our ability to stop competitors from marketing identical or similar products. Because our patent portfolio includes certain patents and applications that are in-licensed on a non-exclusive basis, other parties may be able to develop, manufacture, market and sell products with similar features covered by the same patent rights and technologies, which in turn could significantly undercut the value of any of our product candidates and adversely affect our business. Our licensed MIT European patent No. 1879606 was opposed; however, this patent was maintained in amended form following an administrative hearing. Both parties appealed this decision. MIT granted European patent EP1879606, to which Arch Therapeutics has an exclusive license, was the subject of a hearing at the European Patent Office Board of Appeal (the "**Board of Appeal**") on November 26, 2021 as a result of an appeal by MIT to obtain broader claim scope than was upheld by the European Patent Opposition Division in 2016 and appeals by opponents for the upheld scope to be denied to MIT. At the oral proceedings, in light of concerns expressed by the Board of Appeal, MIT withdrew its appeal and the affected claims, resulting in a formal revocation of the European patent. There is a pending divisional patent application in which the concerns that the Board of Appeal expressed can be addressed. MIT can file further divisional patent applications to seek additional claim scope. There is no guarantee that any divisional patent application will result in a granted patent or that any granted patent will not be opposed and revoked. The Board of Appeal's decision is in relation to the granted European patent EP1879606 and the various national patents that are derived therefrom, and it has no legal significance outside of Europe except in Hong Kong. Further, we cannot be certain that we were the first to make the inventions claimed in the patents we own or license, or that protection of the inventions set forth in those patents was the first to be filed in the U.S. Third parties that have filed patents or patent applications covering similar technologies or processes may challenge our claim of sole right to use the intellectual property covered by the patents we own or exclusively license. Moreover, changes in applicable intellectual property laws or interpretations thereof in the U.S. and other countries may diminish the value of our intellectual property rights or narrow the scope of our patent protection. Any failure to obtain or maintain adequate protection for our intellectual property would materially harm our business, product development programs and prospects. In addition, our proprietary information, trade secrets and know-how are important components of our intellectual property rights. We seek to protect our proprietary information, trade secrets, know-how and confidential information, in part, with confidentiality agreements with our employees, corporate partners, outside scientific collaborators, sponsored researchers, consultants and other advisors. We also have invention or patent assignment agreements with our employees and certain consultants and advisors. If our employees or consultants breach those agreements, we may not have adequate remedies for any of those breaches. In addition, our proprietary information, trade secrets and know-how may otherwise become known to or be independently developed by others. Enforcing a claim that a party illegally obtained and/or for which a party is using our proprietary information, trade secrets and/or know-how is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. may be less willing to protect trade secrets. Costly and time-consuming litigation could be necessary to seek to defend, enforce and/or determine the scope of our intellectual property rights, and failure to obtain or maintain protection thereof could adversely affect our competitive business position and results of operations.

Many of our owned patent applications are pending, and our patent portfolio includes certain patents and applications that are in-licensed on a non-exclusive basis.

As of October 25, 2023, we either own or license from others a number of U.S. patents, U.S. patent applications, foreign patents and foreign patent applications.

We have also entered into a license agreement with MIT pursuant to which we have been granted exclusive rights under two portfolios of patents and non-exclusive rights under another three portfolios of patents.

The two portfolios exclusively licensed from MIT include approximately 30 patents and pending applications drawn to self-assembling peptides, formulations and methods of use thereof and self-assembling peptidomimetics and methods of use thereof in a total of nine jurisdictions. The portfolios include five issued U.S. patents (US 9,511,113; US 9,084,837; US 10,137,166; US 9,327,010; and US 9,364,513) that expire between 2026 and 2027 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

The portfolios non-exclusively licensed from MIT include a number of US and foreign applications, including three issued U.S. patents (US 7,846,891; US 7,713,923; and US 8,901,084) that expire between 2024 and 2026 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

If we lose certain intellectual property rights owned by third parties and licensed to us, our business could be materially harmed.

We have entered into certain in-license agreements with MIT and with certain other third parties and may seek to enter into additional in-license agreements relating to other intellectual property rights in the future. To the extent we and our product candidates rely heavily on any such in-licensed intellectual property, we are subject to our and the counterparty's compliance with the terms of such agreements in order to maintain those rights. Presently, we, our lead product candidates and our business plans are dependent on the patent and other intellectual property rights that are licensed to us under our license agreement with MIT. Although that agreement has a durational term through the life of the licensed patents, it also imposes or imposed certain diligence, capital raising, and other obligations on us, our breach of which could permit MIT to terminate the agreement. Further, we are responsible for all patent prosecution and maintenance fees under that agreement, and a failure to pay such fees on a timely basis could also entitle MIT to terminate the agreement. Any failure by us to satisfy our obligations under our license agreement with MIT or any other dispute or other issue relating to that agreement could cause us to lose some or all of our rights to use certain intellectual property that is material to our business and our lead product candidates, which would materially harm our product development efforts and could cause our business to fail.

If we infringe or are alleged to infringe the intellectual property rights of third parties, our business and financial condition could suffer.

Our research, development and commercialization activities, as well as any product candidates or products resulting from those activities, may infringe or be accused of infringing a patent or other intellectual property under which we do not hold a license or other rights. Third parties may own or control those patents or other rights in the U.S. or abroad and could bring claims against us that would cause us to incur substantial time, expense, and diversion of management attention. If a patent or other intellectual property infringement suit were brought against us, we could be forced to stop or delay research, development, manufacturing or sales, if any, of the applicable product or product candidate that is the subject of the suit. In order to avoid or settle potential claims with respect to any of the patent or other intellectual property rights of third parties, we may choose or be required to seek a license from a third-party and be required to pay license fees or royalties or both. Any such license may not be available on acceptable terms, or at all. Even if we or our future collaborators were able to obtain a license, the rights granted to us or them could be non-exclusive, which could result in our competitors gaining access to the same intellectual property rights and materially negatively affecting the commercialization potential of our planned products. Ultimately, we could be prevented from commercializing one or more product candidates, or be forced to cease some aspects of our business operations, if, as a result of actual or threatened infringement claims, we are unable to enter into licenses on acceptable terms or at all or otherwise settle such claims. Further, if any such claims were successful against us, we could be forced to pay substantial damages. Any of those results could significantly harm our business, prospects and operations.

Risks Related to Ownership of our Common Stock and Investor Warrants

We have pursued an Uplist Transaction by filing an application to list our Common Stock to trade on the Nasdaq Capital Market. We may not satisfy the listing requirements and thereby consummate an Uplist Transaction, including the requirement to have sufficient capital to satisfy our working capital requirements for at least one year, and the minimum bid price requirement to list on the Nasdaq Capital Market. In the event we fail to list our Common Stock on the Nasdaq Capital Market, such failure may inhibit or preclude our ability to raise additional financing.

We have committed to pursue an Uplist Transaction. Accordingly, we have filed an application to list our Common Stock on the Nasdaq Capital Market. To successfully list our Common Stock, we are required to satisfy certain Nasdaq listing requirements, including having sufficient capital to satisfy our working capital requirements for at least one year, achieving a minimum bid price for our Common Stock, among other requirements relating to stockholder equity, market value of listed securities and number of market makers and stockholders. If we fail to meet any of those requirements, our application to list our Common Stock on the Nasdaq Capital Market will be denied. No assurances can be given that we will satisfy the listing requirements. If our application is not successful, our Board will weigh the available alternatives to successfully consummate an Uplist Transaction and list our Common Stock on the Nasdaq Capital Market. However, there can be no assurance that we will be able to successfully meet such listing requirements. If, for any reason, our listing application is not approved by Nasdaq and we are unable to otherwise consummate an Uplist Transaction on another national securities exchange or take action to successfully list our Common Stock on the Nasdaq Capital Market, our ability to raise additional capital may be adversely affected.

There is not now, and there may not ever be, an active market for our Common Stock, which trades in the over-the-counter market in low volumes and at volatile prices. Even if this offering is successful and our application to list our Common Stock on the Nasdaq Capital Market or an Alternate Exchange is approved, no assurance can be given that an active trading market for our Common Stock will develop or be maintained.

There currently is a limited market for our Common Stock. Although our Common Stock is quoted on the OTCQB, an over-the-counter quotation system, trading of our Common Stock is extremely limited and sporadic and generally at very low volumes. Further, the price at which our Common Stock may trade is volatile and we expect that it will continue to fluctuate significantly in response to various factors, many of which are beyond our control. The stock market in general, and securities of small-cap companies driven by novel technologies in particular, has experienced extreme price and volume fluctuations in recent years. Continued market fluctuations could result in further volatility in the price at which our Common Stock may trade, which could cause its value to decline. To the extent we seek to raise capital in the future through the issuance of equity, those efforts could be limited or hindered by low and/or volatile market prices for our Common Stock.

We have applied to list our Common Stock on the Nasdaq Capital Market under the symbol "ARTH." No assurance can be given that our application will be approved or that, if approved, an active trading market for our securities will develop or be maintained. If our Common Stock is not approved for listing on the Nasdaq Capital Market or an Alternate Exchange, we will not complete this offering. Even if our Common Stock is approved for listing on the Nasdaq Capital Market or an Alternate Exchange, an active trading market for our Common Stock may not develop or be sustained. In the absence of an active trading market for our Common Stock, the ability of our stockholders to sell their securities could be limited. As a result, investors must bear the economic risk of holding their shares of our Common Stock for an indefinite period of time.

Under the 2022 Notes, we are obligated to complete an Uplist Transaction by November 15, 2023 to the Nasdaq Capital Market or an Alternate Exchange. In the event we are unable to uplist our Common Stock, we anticipate that our Common Stock will continue to be quoted on the OTCQB or another over-the-counter quotation system. In those venues, our stockholders may find it difficult to obtain accurate quotations as to the market value of their shares of our Common Stock and may find few buyers to purchase their stock and few market makers to support its price. There is no assurance that our Common Stock will ever be listed on a national securities exchange, that we will be able to comply with or continue to meet such applicable listing standards.

There is not now and may not be an active liquid trading market for our Investor Warrants.

There is no established public trading market for our Investor Warrants. Although we plan to apply to have the Investor Warrants listed on the Nasdaq Capital Market or Alternate Exchange under the symbol "ARTHW," there is no assurance our application will be approved, or even if it is approved, that a public trading market will develop or if one develops that it will be maintained. Without a public market, the liquidity of the Investor Warrants will remain limited. However, if our Investor Warrants are not approved for listing on the Nasdaq Capital Market or an Alternate Exchange, we will still complete this offering.

Even if our planned Reverse Split achieves the requisite increase in the market price of our Common Stock, there can be no assurance that we will be approved for listing on the Nasdaq Capital Market or an Alternate Exchange or be able to comply with other continued listing standards of the Nasdaq Capital Market or an Alternate Exchange.

On August 22, 2023, the stockholders approved a reverse stock split between 1-for-1.5 to 1-for-20, and the Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering, and without correspondingly decreasing the number of authorized shares of Common Stock. Even if our planned Reverse Split increases the market price of our Common Stock sufficiently so that we comply with the minimum market price requirement, no assurance can be given that we will be able to comply with the other standards that we are required to meet in order to be approved for listing on the Nasdaq Capital Market or an Alternate Exchange or maintain a listing of our Common Stock on such exchange. Our failure to meet these requirements prior to listing will result in the offering not occurring and our failure to meet these requirements following listing may result in our Common Stock being delisted from the Nasdaq Capital Market or an Alternate Exchange.

The Reverse Split may decrease the liquidity of the shares of our Common Stock.

The liquidity of the shares of our Common Stock may be affected adversely by the Reverse Split given the reduced number of shares that will be outstanding following the Reverse Split. In addition, the Reverse Split may increase the number of stockholders who own odd lots (less than 100 shares) of our Common Stock, creating the potential for such stockholders to experience an increase in the cost of selling their shares and greater difficulty affecting such sales.

If this offering is successful, we will be subject to the continued listing requirements of the Nasdaq Capital Market or an Alternate Exchange. If we are unable to comply with such requirements, our Common Stock and Investor Warrants would be delisted from the Nasdaq Capital Market or such Alternate Exchange, which would limit investors' ability to effect transactions in our Common Stock and Investor Warrants and subject us to additional trading restrictions.

Even if this offering is successful and our application to list our Common Stock and Investor Warrants on the Nasdaq Capital Market or an Alternate Exchange is approved, if we fail to meet the Nasdaq Capital Market or such Alternate Exchange continued listing requirements, including stockholder equity requirements, our Common Stock and Investor Warrants could be subject to delisting by the Nasdaq Capital Market or such Alternate Exchange, which could reduce the liquidity of our Common Stock and Investor Warrants materially and result in a corresponding material reduction in the price of our Common Stock and Investor Warrants. In addition, delisting could harm our ability to raise capital through alternative financing sources on terms acceptable to us, or at all, and may result in the potential loss of confidence by investors, employees and business development opportunities. Such a delisting likely would impair your ability to sell or purchase our Common Stock and Investor Warrants when you wish to do so. Further, if we were to be delisted from the Nasdaq Capital Market or an Alternate Exchange, our Common Stock and Investor Warrants would no longer be recognized as a "covered security" and we would be subject to regulation in each state in which we offer our securities. Thus, delisting from the Nasdaq Capital Market or an Alternate Exchange could adversely affect our ability to raise additional financing through the public or private sale of equity securities, would significantly impact the ability of investors to trade our securities and would negatively impact the value and liquidity of our Common Stock and Investor Warrants.

Our Common Stock may experience extreme stock price volatility unrelated to our actual or expected operating performance, financial condition or prospects, making it difficult for prospective investors to assess the rapidly changing value of our Common Stock.

Recently, there have been instances of extreme stock price run-ups followed by rapid price declines and strong stock price volatility with a number of recent initial public offerings, especially among companies with relatively smaller public floats. As a relatively small-capitalization company with relatively small public float, we may experience greater stock price volatility, extreme price run-ups, lower trading volume and less liquidity than large-capitalization companies. In particular, our Common Stock may be subject to rapid and substantial price volatility, low volumes of trades and large spreads in bid and ask prices. Such volatility, including any stock-run up, may be unrelated to our actual or expected operating performance, financial condition or prospects, making it difficult for prospective investors to assess the rapidly changing value of our Common Stock.

In addition, if the trading volumes of our Common Stock are low, persons buying or selling in relatively small quantities may easily influence prices of our Common Stock. This low volume of trades could also cause the price of our Common Stock to fluctuate greatly, with large percentage changes in price occurring in any trading day session. Holders of our Common Stock may also not be able to readily liquidate their investment or may be forced to sell at depressed prices due to low volume trading. If high spreads between the bid and ask prices of our Common Stock exist at the time of a purchase, the stock would have to appreciate substantially on a relative percentage basis for an investor to recoup their investment. Broad market fluctuations and general economic and political conditions may also adversely affect the market price of our Common Stock.

As a result of this volatility, investors may experience losses on their investment in our Common Stock. A volatile market price of our Common Stock also could adversely affect our ability to issue additional shares of Common Stock or other securities and our ability to obtain additional financing in the future.

Substantial future sales of our shares of Common Stock or rights to purchase shares of our Common Stock, or the perception that such sales could occur, could cause the market price of our Common Stock to decline, even if our business is doing well.

As noted above under the risk factor entitled, "***There is substantial doubt about our ability to continue as a going concern. Even if this offering is successful, we will need additional funding to continue our operations and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail.***" Sales of substantial amounts of our Common Stock in the public market or the perception that such sales could occur, could adversely affect the trading price of our Common Stock, and may make it more difficult for you to sell your Common Stock at a time and price that you deem appropriate. We are unable to predict the effect that such sales may have on the prevailing price of our Common Stock. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

We, our directors and executive officers have entered into or will enter into lock-up agreements with the underwriter of this offering pursuant to which they and we have agreed, or will agree, that, subject to certain exceptions, we will not issue or offer, and they will not sell, contract to sell, encumber, grant any option for the sale of, or otherwise dispose of any shares or any securities convertible into or exchangeable for shares of our Common Stock for a period of 6 months after the offering is completed. See the section titled "**Underwriting**" for more information. Sales of a substantial number of such shares upon expiration of, or the perception that such sales may occur, or early release of the securities subject to, the lock-up agreements, could cause our stock price to fall or make it more difficult for you to sell your Common Stock at a time and price that you deem appropriate. A decline in the price of our Common Stock might impede our ability to raise capital through the issuance of additional Common Stock or other equity securities.

In addition, in the future, we may issue additional shares of Common Stock, warrants or other equity or debt securities convertible into Common Stock in one or more transactions, at prices and in a manner we determine from time to time, in connection with a financing, acquisition, litigation settlement, employee arrangements or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause the price of our Common Stock or warrants to decline.

If we issue additional shares in the future, including issuances of shares upon exercise of our outstanding warrants and convertible notes, our existing stockholders will be significantly diluted.

As of September 21, 2023, our articles of incorporation authorize the issuance of up to 350,000,000 shares of Common Stock. The issuance of shares of our Common Stock upon the exercise of our outstanding warrants or conversion of outstanding convertible notes, summarized below, could result in substantial dilution to our stockholders, which may have a negative effect on the price of our Common Stock.

As of October 25, 2023, there were issued and outstanding (or expected to be issued and outstanding, as specified below): (i) options granted to employees, directors and consultants under our 2013 Stock Incentive Plan (the "**2013 Plan**") to purchase up to an aggregate of 12,613 shares of Common Stock at exercise prices ranging from $32.00 to $1,040.00 per share and with a weighted average exercise price of $300.43 per share; (ii) 3,285,387 shares of Common Stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of $8.77 per share (which includes 2,349,826 Common Warrants that will automatically be cancelled and exchanged for 7,049,447 Exchange Investor Warrants at the closing of this offering); (iii) Series 2 Convertible Notes convertible into 6,615 shares of Common Stock at a conversion price of $400.00 per share; (iv) 1,567,127 shares of Common Stock issuable upon regular (non-Automatic) conversion of the 2022 Notes at the conversion price of $4.00 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (v) 1,716,780 shares of Common Stock to be issuable upon exercise at $0.001 per share of the PIPE Pre-Funded Warrants expected to be issued immediately prior to the pricing of this offering; (vi) 1,716,780 shares of Common Stock to be issuable upon exercise at $4.00 per share of the PIPE Investor Warrants expected to be issued immediately prior to the pricing of this offering; (vii) 85,839 shares of Common Stock to be issuable upon exercise at $5.15625 per share of the PIPE Placement Agent Warrants expected to be issued immediately prior to the pricing of this offering; (viii) 2,528,812 True-Up Shares expected to be issued at the closing of this offering; (ix) 5,695,529 shares of Common Stock to be issuable upon exercise at $0.001 of the True-Up Pre-Funded Warrants expected to be issued at the closing of this offering; (x) 20,000,286 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Uplist Conversion Warrants expected to be issued at the closing of this offering; (xi) 7,049,447 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Exchange Investor Warrants expected to be issued at the closing of this offering; (xii) 56,896 shares of Common Stock reserved for future issuance under the 2023 Plan; and (xiii) up to 1,030,303 shares (1,184,848 shares if the underwriters' option to purchase additional Investor Warrants is exercised in full) of Common Stock issuable upon exercise at $4.00 per share of the Investor Warrants to be issued in this offering.

After giving effect to the closing of the Uplist PIPE, expected to occur immediately prior to the pricing of this offering, and after giving effect to the issuance of the True-Up Shares and True-Up Pre-Funded Warrants at the closing of this offering, and the assumed exercise in full of the Bridge Pre-Funded Warrants, PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and 2022 Note Conversion Pre-Funded Warrants, if any, (collectively, the "**Pro Forma Pre-Funded Warrants**"), but prior to giving effect to the offering, there would be an aggregate of 11,284,187 shares of Common Stock outstanding, before giving effect to the issuance of the Units and Pre-Funded Units in this offering. The exercise of the Pro Forma Pre-Funded Warrants (which have exercise prices of $0.001 or $0.008 and therefore function as common stock equivalents) assumed in the previous sentence is only for illustrative purposes, and there is no assurance as to when, if at all, any of such securities will be exercised.

Additionally, the numbers issuable under the 2023 Plan will increase by specific amounts, as described above under "**Prospectus Summary—Recent Developments—Equity Incentive Plan**." Any future grants of options, warrants or other securities exercisable or convertible into our Common Stock, or the exercise or conversion of such shares, and any sales of such shares in the market, could have an adverse effect on the market price of our Common Stock.

In addition to capital raising activities, other possible business and financial uses for our authorized Common Stock include, without limitation, future stock splits, acquiring other companies, businesses or products in exchange for shares of Common Stock, issuing shares of our Common Stock to partners in connection with strategic alliances, attracting and retaining employees by the issuance of additional securities under our various equity compensation plans, compensating consultants by issuing shares or options to purchase shares of our Common Stock, or other transactions and corporate purposes that our Board deems are in the Company's best interest. Additionally, shares of Common Stock could be used for anti-takeover purposes or to delay or prevent changes in control or management of the Company. We cannot provide assurances that any issuances of Common Stock will be consummated on favorable terms or at all, that they will enhance stockholder value, or that they will not adversely affect our business or the trading price of our Common Stock. The issuance of any such shares will reduce the book value per share and may contribute to a reduction in the market price of the outstanding shares of our Common Stock. If we issue any such additional shares, such issuance will reduce the proportionate ownership and voting power of all current stockholders. Further, such issuance may result in a change of control of our Company.

We are a smaller reporting company, and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our Common Stock less attractive to investors.

We are currently a "smaller reporting company", meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and we either have a public float of less than $250 million as of the last business day of our second fiscal quarter or annual revenues of less than $100 million during our most recently completed fiscal year and a public float of less than $700 million. Smaller reporting companies are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports and in a registration statement under the Exchange Act on Form 10. Decreased disclosures in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.

Financial Industry Regulatory Authority ("FINRA") sales practice requirements may limit a stockholder's ability to buy and sell our stock.

In addition to the "penny stock" rules described above, FINRA has adopted rules that require that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that speculative low-priced securities will not be suitable for at least some customers. These FINRA requirements make it more difficult for broker-dealers to recommend that at least some of their customers buy our Common Stock, which may limit the ability of our stockholders to buy and sell our Common Stock and could have an adverse effect on the market for our shares.

There may be additional risks because we completed a reverse merger transaction in June 2013.

Additional risks may exist because we completed a "reverse merger" transaction in June 2013. Securities analysts of major brokerage firms may not provide coverage of the Company because there may be little incentive to brokerage firms to recommend the purchase of our Common Stock. There may also be increased scrutiny by the SEC and other government agencies and holders of our securities due to the nature of the transaction, as there has been increased focus on transactions such as the Merger in recent years. Further, since the Company existed as a "shell company" under applicable rules of the SEC up until the closing of the Merger on June 26, 2013, there will be certain restrictions and limitations on the Company going forward relating to any potential future issuances of additional securities to raise funding and compliance with applicable SEC rules and regulations.

The elimination of monetary liability against our directors and officers under Nevada law and the existence of indemnification rights held by our directors, officers and employees may result in substantial expenditures by us and may discourage lawsuits against our directors, officers and employees.

Our articles of incorporation eliminate the personal liability of our directors and officers to our Company and our stockholders for damages for breach of fiduciary duty as a director or officer to the extent permissible under Nevada law. Further, our amended and restated bylaws provide that we are obligated to indemnify any of our directors or officers to the fullest extent authorized by Nevada law and, subject to certain conditions, advance the expenses incurred by any director or officer in defending any action, suit or proceeding prior to its final disposition.

Those indemnification obligations could result in our Company incurring substantial expenditures to cover the cost of settlement or damage awards against our directors or officers, which we may be unable to recoup. These provisions and resultant costs may also discourage us from bringing a lawsuit against any of our current or former directors or officers for breaches of their fiduciary duties and may similarly discourage the filing of derivative litigation by our stockholders against our directors and officers even if such actions, if successful, might otherwise benefit us or our stockholders.

We are subject to the reporting requirements of federal securities laws, compliance with which involves significant time, expense and expertise.

We are a public reporting company in the U.S., and, accordingly, are subject to the information and reporting requirements of the Exchange Act and other federal securities laws, including the obligations imposed by the Sarbanes-Oxley Act. The costs associated with preparing and filing annual, quarterly and current reports, proxy statements and other information with the SEC in the ordinary course, as well as preparing and filing audited financial statements, has caused, and could continue to cause, our operational expenses to remain at higher levels or continue to increase.

Shares of our Common Stock that have not been registered under federal securities laws are subject to resale restrictions imposed by Rule 144. In addition, any shares of our Common Stock that are held by affiliates, including any that are registered, will be subject to the resale restrictions of Rule 144.

Rule 144 imposes requirements on us and our stockholders that must be met in order to effect a sale thereunder. As a result, it will be more difficult for us to raise funding to support our operations through the sale of debt or equity securities unless we agree to register such securities under the Securities Act, which could cause us to expend significant additional time and cash resources and which we presently have no intention to pursue. Further, it may be more difficult for us to compensate our employees and consultants with our securities instead of cash. We were a shell company prior to the closing of the Merger, and such status could also limit our use of our securities to pay for any acquisitions we may seek to pursue in the future (although none are currently planned) and could cause the value of our securities to decline. In addition, any shares held by affiliates, including shares received in any registered offering, will be subject to certain additional requirements in order to effect a sale of such shares under Rule 144.

We do not intend to pay cash dividends on our Common Stock in the foreseeable future.

We have never declared or paid any dividends on our shares and do not anticipate paying any such dividends in the foreseeable future. Any future payment of cash dividends would depend on our financial condition, contractual restrictions, solvency tests imposed by applicable corporate laws, results of operations, anticipated cash requirements and other factors and will be at the discretion of our Board.

The market price of our Common Stock may be volatile which could subject us to securities class action litigation.

The market price for our Common Stock has been and may continue to be volatile and subject to wide fluctuations in response to factors including the following:

- sales or potential sales of substantial amounts of our Common Stock;
- delay or failure in initiating or completing preclinical or clinical trials or unsatisfactory results of these trials;
- announcements about us or about our competitors, including clinical trial results, regulatory approvals or new product introductions;
- developments concerning our product manufacturers;
- litigation and other developments relating to our patents or other proprietary rights or those of our competitors;
- conditions in the pharmaceutical or biotechnology industries;
- governmental regulation and legislation;
- variations in our anticipated or actual operating results;
- change in securities analysts' estimates of our performance, or our failure to meet analysts' expectations; foreign currency values and fluctuations; and
- overall economic conditions.

In the past, securities class action litigation has been brought against companies following periods of volatility of its securities in the marketplace. The stock markets in general, and the market for pharmaceutical and biotechnology companies in particular, have historically experienced extreme price and volume fluctuations. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors could reduce the market price of our Common Stock, regardless of our actual operating performance. Due to the volatility of our stock price, we could be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources.

Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "**Use of Proceeds**," and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our Common Stock. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. Our failure to apply these funds effectively could have a material adverse effect on our business and cause the price of our Common Stock to decline.

You will experience immediate and substantial dilution in the net tangible book value per share of the Common Stock included in the Units or issuable upon exercise of the Pre-Funded Warrants in this offering.

The public offering price of the Units and Pre-Funded Units being offered in this offering is substantially higher than the net tangible book value per share of our Common Stock prior to the offering. Investors purchasing Units or Pre-Funded Units in this offering may pay an effective price per share of Common Stock that may substantially exceed the pro forma book value of our tangible assets after subtracting our liabilities. Based on an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, if you purchase shares of our Common Stock in this offering, you will suffer immediate and substantial dilution of $3.525 per share with respect to the net tangible book value of the Common Stock. See the section entitled "**Dilution**" below for a more detailed discussion of the dilution you will incur if you purchase securities in this offering. As a result of the dilution to investors purchasing securities in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of a liquidation of our company.

There is no public market for the Investor Warrants or the Pre-Funded Warrants.

There is no established public trading market for the Investor Warrants or the Pre-Funded Warrants, and we do not expect a market to develop for the Pre-Funded Warrants. We have applied to list the Investor Warrants on the Nasdaq Capital Market under the symbol "ARTHW." No assurance can be given that such listing will be approved or, if successful, that an active trading market for the Investor Warrants will develop or be sustained. In addition, we do not intend to apply to list the Pre-Funded Warrants on any national securities exchange or other nationally recognized trading system. Without an active market, the liquidity of the Investor Warrants and the Pre-Funded Warrants will be limited.

The Investor Warrants and the Pre-Funded Warrants in this offering are speculative in nature.

Neither the Investor Warrants nor the Pre-Funded Warrants in this offering confer any rights of Common Stock ownership on its holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of Common Stock at a fixed price, as the case maybe. In addition, following this offering, the market value of the Investor Warrants, if any, is uncertain and there can be no assurance that the market value of the Investor Warrants will equal or exceed their imputed offering price. The Pre-Funded Warrants will not be listed or quoted for trading on any market or exchange.

USE OF PROCEEDS

We expect to receive net proceeds of approximately $310 million from this offering or approximately $3.7 million if the underwriters exercise their option to purchase additional shares of Common Stock and/or Investor Warrants in full, based on an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, after deducting the estimated underwriting discounts and commissions and offering expenses payable by us. We currently intend to use the net proceeds we receive from this offering for product marketing and for general working capital purposes.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot currently allocate specific percentages of the net proceeds that we may use for the purposes specified above, and we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual expenditures will depend upon numerous factors, including our sales and marketing efforts, demand for our products, our operating costs and the other factors described under "**Risk Factors**" in this prospectus. Accordingly, our management will have flexibility in applying the net proceeds from this offering. An investor will not have the opportunity to evaluate the economic, financial or other information on which we base our decisions on how to use the proceeds.

Each $0.25 increase (decrease) in the assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $0.2 million, assuming that the number of Units offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of Units we are offering. An increase (decrease) of 1,000,000 in the number of Units we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $3.8 million, assuming the public offering price stays the same. We do not expect that a change in the offering price or the number of Units by these amounts would have a material effect on our intended uses of the net proceeds from this offering, although it may impact the amount of time prior to which we may need to seek additional capital.

MARKET PRICE OF AND DIVIDENDS ON COMMON STOCK AND RELATED MATTERS

Market Information

Our Common Stock is currently quoted on the OTCQB over-the-counter quotation system under the stock symbol "ARTH". Our Common Stock began quotation on the OTCBB and the OTCQB on June 27, 2013 and since that date has been primarily traded on the OTCQB. There was no trading of our Common Stock on the OTCBB, OTCQB or any other over-the-counter market prior to January 2, 2013. Although our Common Stock is currently quoted on the OTCQB, there is a limited trading market for our Common Stock and there has been limited trading activity in our Common Stock to date. Because our Common Stock is thinly traded on the OTCQB, (i) any reported sale prices may not be a true market-based valuation of our Common Stock; and (ii) such over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

We have applied to list our Common Stock and Investor Warrants on the Nasdaq Capital Market under the symbols "ARTH" and "ARTHW", respectively. There is no assurance that our listing application will be approved by the Nasdaq Capital Market, or, if successful, that an active trading market for our Common Stock or Investor Warrants will develop or be sustained. If we are unable to list our Common Stock on the Nasdaq Capital Market or an Alternate Exchange, we will not consummate this offering.

Dividends

We have never declared or paid any cash dividends or distributions on our Common Stock. We currently intend to retain our future earnings, if any, to support operations and to finance expansion, and, therefore, we do not anticipate paying any cash dividends on our Common Stock in the foreseeable future. Any future payment of dividends will depend upon our results of operations, financial condition, cash requirements and other factors deemed relevant by our Board.

Holders

As of October 25, 2023, there were approximately 131 holders of record of our Common Stock.

Transfer Agent and Registrar

The transfer agent and warrant agent for our Common Stock and Investor Warrants, respectively, is Empire Stock Transfer. Our transfer agent's address is 1859 Whitney Mesa Drive, Henderson, Nevada 89014.

CAPITALIZATION

The following table sets forth our cash and capitalization as of June 30, 2023:

- on an actual basis;
- on a pro forma basis to give effect to (i) the issuance of 418,051 Bridge Shares (and the Common Warrants) and 756,871 Bridge Pre-Funded Warrants in the Bridge Offering between July 7, 2023 and September 11, 2023 for net proceeds of approximately $2,349,067, and assuming the full exercise of all of the Bridge Pre-Funded Warrants, (ii) the conversion in full of the Series 1 Notes for the issuance of 7,489 shares of Common Stock on July 12, 2023, (iii) the expected full conversion of the Series 2 Notes into an aggregate of 6,615 shares of Common Stock at the closing of this offering, (iv) the expected issuance immediately prior to the pricing of this offering of 1,716,780 PIPE Pre-Funded Warrants in the Uplist PIPE for net proceeds of approximately $6,413,600, and assuming the full exercise of all of the PIPE Pre-Funded Warrants, (v) the expected issuance at the closing of this offering of 2,528,812 True-Up Shares and True-Up Pre-Funded Warrants to purchase an aggregate of 5,695,529 shares of Common Stock, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, and assuming the full exercise of all of the True-Up Pre-Funded Warrants and (vi) the expected issuance at the closing of this offering of an aggregate of 783,564 shares of Common Stock upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, assuming no issuance of any 2022 Note Conversion Pre-Funded Warrants, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in this offering of $4.00 per share (the events in clauses (i) through (vi), the "**Pro Forma Events**"); and
- on a pro forma, as adjusted basis, to give effect to the issuance and sale by us of 1,030,303 Units in this offering based on an assumed public offering price of $4.125 per Unit (assuming no sale of any Pre-Funded Units), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the receipt by us of the proceeds of such sale.

You should read this table together with "**Use of Proceeds**," "**Management's Discussion and Analysis of Financial Condition and Results of Operations**" and our audited and unaudited financial statements and related notes thereto included elsewhere in this prospectus.

	As of June 30, 2023		
	Actual	Pro Forma	Pro Forma As Adjusted
	(unaudited)	(unaudited)	(unaudited) (1)
Cash	$ 86,542	$ 8,849,209	$ 11,984,209
Total liabilities	9,579,274	5,585,232	5,585,232
Stockholders' deficit:			
Common stock, $0.001 par value, 12,000,000 shares authorized as of June 30, 2023 (350,000,000 effective September 21, 2023), and 160,657 shares, actual, 12,074,363 shares, pro forma and 13,104,666 shares, pro forma as adjusted, issued as of June 30, 2023	161	12,074	13,035
Additional paid-in capital	$ 51,583,224	$ 63,614,810	$ 66,748,849
Accumulated deficit	$ (59,598,413)	$ (58,885,203)	$ (58,885,203)
Total stockholders' (deficit) equity	$ (8,015,028)	$ 4,741,681	$ 7,876,681
Total capitalization	$ 1,564,246	$ 10,326,913	$ 13,461,913

(1) A $0.25 increase or decrease in the assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, would increase or decrease the pro forma as adjusted amount of each of cash, additional paid-in capital, total stockholders' equity (deficit) and total capitalization by approximately $0.2 million, assuming that the number of Units offered by us, as set forth on the cover page of this prospectus, remains the same (assuming no sale of any Pre-Funded Units) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and assuming no exercise of the Investor Warrants issued as part of the Units. An increase or decrease of 1,000,000 in the number of Units offered by us, as set forth on the cover page of this prospectus (assuming no sale of any Pre-Funded Units), would increase or decrease the pro forma as adjusted amount of each of cash, additional paid-in capital, total stockholders' equity (deficit) and total capitalization by approximately $3.8 million, assuming no change in the assumed public offering price per Unit and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and assuming no exercise of the Investor Warrants issued as part of the Units.

Except as indicated otherwise, the total number of shares reflected in the discussion and tables above is based on 160,657 shares of our Common Stock outstanding as of June 30, 2023, and excludes, in each case: As of such date, (i) options granted to employees, directors and consultants under our 2013 Plan to purchase up to an aggregate of 12,613 shares of Common Stock at exercise prices ranging from $32.00 to $1,040.00 per share and with a weighted average exercise price of $300.43 per share; (ii) 123,461 shares of Common Stock issuable upon the exercise of warrants outstanding as of June 30, 2023, having a weighted average exercise price of $80.10 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (iii) 418,051 Bridge Shares issued in the Bridge Offering; (iv) Bridge Pre-Funded Warrants to purchase an aggregate of 756,871 shares of Common Stock issued in the Bridge Offering; (v) Common Warrants to purchase an aggregate 2,349,826 shares of Common Stock issued in the Bridge Offering; (vi) Placement Agent Warrants to purchase an aggregate 55,242 shares of Common Stock issued in connection with the Bridge Offering; (vii) Series 2 Convertible Notes convertible into 6,615 shares of Common Stock at a conversion price of $400.00 per share; (viii) 1,567,127 shares of Common Stock issuable upon regular (non-Automatic) conversion of the 2022 Notes at the conversion price of $4.00 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (ix) 1,716,780 shares of Common Stock to be issuable upon exercise at $0.001 per share of the PIPE Pre-Funded Warrants expected to be issued immediately prior to the pricing of this offering; (x) 1,716,780 shares of Common Stock to be issuable upon exercise at $4.00 per share of the PIPE Investor Warrants expected to be issued immediately prior to the pricing of this offering; (xi) 85,839 shares of Common Stock to be issuable upon exercise at $5.15625 per share of the PIPE Placement Agent Warrants expected to be issued immediately prior to the pricing of this offering; (xii) 2,528,812 True-Up Shares expected to be issued at the closing of this offering; (xiii) 5,695,529 shares of Common Stock to be issuable upon exercise at $0.001 of the True-Up Pre-Funded Warrants expected to be issued at the closing of this offering; (xiv) 20,000,286 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Uplist Conversion Warrants expected to be issued at the closing of this offering; (xv) 7,049,447 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Exchange Investor Warrants expected to be issued at the closing of this offering; (xvi) 56,896 shares of Common Stock reserved for future issuance under the 2023 Plan; and (xvii) up to 1,030,303 shares (1,184,848 shares if the underwriters' option to purchase additional Investor Warrants is exercised in full) of Common Stock issuable upon exercise at $4.00 per share of the Investor Warrants to be issued in this offering.

Except as indicated otherwise, the discussion and table above assume no sale of Pre-Funded Units and no exercise of the underwriters' option to purchase up to 154,545 additional shares of Common Stock and/or Investor Warrants to purchase up to 154,545 additional shares of Common Stock.

DILUTION

If you invest in our securities in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of Common Stock included in each Unit or issuable upon exercise of the Pre-Funded Warrants (attributing no value to the Investor Warrants) and the as adjusted net tangible book value per share of our Common Stock after this offering. We calculate net tangible book value per share by dividing the net tangible book value (tangible assets less total liabilities) by the number of outstanding shares of our Common Stock.

The net tangible book value (deficit) of our Common Stock as of June 30, 2023, was approximately $(8.0 million), or approximately $(49.89) per share of Common Stock. Net tangible book value per share represents the amount of our total tangible assets less total liabilities divided by the total number of our shares of Common Stock outstanding as of June 30, 2023.

Our pro forma net tangible book value as of June 30, 2023 was $4.7 million, or $0.39 per share of Common Stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to (i) the issuance of 418,051 Bridge Shares (and the Common Warrants) and 756,871 Bridge Pre-Funded Warrants in the Bridge Offering between July 7, 2023 and September 11, 2023 for net proceeds of approximately $2,349,067, and assuming the full exercise of all of the Bridge Pre-Funded Warrants, (ii) the conversion in full of the Series 1 Notes for the issuance of 7,489 shares of Common Stock on July 12, 2023, (iii) the expected full conversion of the Series 2 Notes into an aggregate of 6,615 shares of Common Stock at the closing of this offering, (iv) the expected issuance immediately prior to the pricing of this offering of 1,716,780 PIPE Pre-Funded Warrants in the Uplist PIPE for net proceeds of approximately $6,413,600, and assuming the full exercise of all of the PIPE Pre-Funded Warrants, (v) the expected issuance at the closing of this offering of 2,528,812 True-Up Shares and True-Up Pre-Funded Warrants to purchase an aggregate of 5,695,529 shares of Common Stock, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, and assuming the full exercise of all of the True-Up Pre-Funded Warrants and (vi) the expected issuance at the closing of this offering of an aggregate of 783,564 shares of Common Stock upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, assuming no issuance of any 2022 Note Conversion Pre-Funded Warrants, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in this offering of $4.00 per share. Pro forma net tangible book value per share represents the pro forma net tangible book value divided by the total number of shares outstanding as of June 30, 2023, after giving effect to the pro forma adjustment described above.

After giving further effect to the sale of 1,030,303 shares of Common Stock included in the Units in this offering at an assumed public offering price of $4.125 per share of Common Stock included in each Unit (assuming no sale of Pre-Funded Units), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, and assuming no exercise of the Investor Warrants issued as part of the Units, our pro forma, as adjusted net tangible book value as of June 30, 2023 would have been approximately $7.9 million, or approximately $0.60 per share of Common Stock. This amount represents an immediate increase in actual book value of $50.49 per share to our existing stockholders and immediate dilution of approximately $3.525 per share to new investors in this offering (attributing no value to the Investor Warrants). We determine dilution by subtracting the as adjusted net tangible book value per share after this offering from the amount of cash that a new investor paid for a share of Common Stock included in each Unit in this offering. The following table illustrates this dilution:

Assumed public offering price per Unit		$ 4.125
Net tangible book value (deficit) per share as of June 30, 2023	$ (49.89)	
Pro forma net tangible book value per share after giving effect to the Pro Forma Events	0.39	
Increase in pro forma net tangible book value per share after giving effect to this offering (including the Pro Forma Events)	0.21	
Pro forma, as adjusted net tangible book value per share as of June 30, 2023 after giving effect to this offering and the Pro Forma Events	0.60	
Dilution per share to new investors in this offering	3.525	

If the underwriters exercise their option to purchase additional shares of our Common Stock in full, the pro forma, as adjusted net tangible book value after this offering would be approximately $0.64 per share, the increase in pro forma net tangible book value per share would be approximately $0.25 and dilution per share to new investors would be approximately $3.485 per share.

Each $0.25 increase (decrease) in the assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $0.2 million, assuming that the number of Units offered by us, as set forth on the cover page of this prospectus, remains the same (assuming no sale of any Pre-Funded Warrants) and assuming no exercise of the Investor Warrants issued as part of the Units. We may also increase or decrease the number of Units we are offering. An increase (decrease) of 1,000,000 in the number of Units we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $3.8 million, assuming the public offering price stays the same (assuming no sale of any Pre-Funded Warrants) and assuming no exercise of the Investor Warrants issued as part of the Units. We do not expect that a change in the offering price or the number of Units by these amounts would have a material effect on our intended uses of the net proceeds from this offering, although it may impact the amount of time prior to which we may need to seek additional capital.

The total number of shares reflected in the discussion and tables above is based on 160,657 shares of our Common Stock outstanding as of June 30, 2023, and excludes, in each case: As of such date, (i) options granted to employees, directors and consultants under our 2013 Plan to purchase up to an aggregate of 12,613 shares of Common Stock at exercise prices ranging from $32.00 to $1,040.00 per share and with a weighted average exercise price of $300.43 per share; (ii) 123,461 shares of Common Stock issuable upon the exercise of warrants outstanding as of June 30, 2023, having a weighted average exercise price of $80.10 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (iii) 418,051 Bridge Shares issued in the Bridge Offering; (iv) Bridge Pre-Funded Warrants to purchase an aggregate of 756,871 shares of Common Stock issued in the Bridge Offering; (v) Common Warrants to purchase an aggregate 2,349,826 shares of Common Stock issued in the Bridge Offering; (vi) Placement Agent Warrants to purchase an aggregate 55,242 shares of Common Stock issued in connection with the Bridge Offering; (vii) Series 2 Convertible Notes convertible into 6,615 shares of Common Stock at a conversion price of $400.00 per share; (viii) 1,567,127 shares of Common Stock issuable upon regular (non-Automatic) conversion of the 2022 Notes at the conversion price of $4.00 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (ix) 1,716,780 shares of Common Stock to be issuable upon exercise at $0.001 per share of the PIPE Pre-Funded Warrants expected to be issued immediately prior to the pricing of this offering; (x) 1,716,780 shares of Common Stock to be issuable upon exercise at $4.00 per share of the PIPE Investor Warrants expected to be issued immediately prior to the pricing of this offering; (xi) 85,839 shares of Common Stock to be issuable upon exercise at $5.15625 per share of the PIPE Placement Agent Warrants expected to be issued immediately prior to the pricing of this offering; (xii) 2,528,812 True-Up Shares expected to be issued at the closing of this offering; (xiii) 5,695,529 shares of Common Stock to be issuable upon exercise at $0.001 of the True-Up Pre-Funded Warrants expected to be issued at the closing of this offering; (xiv) 20,000,286 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Uplist Conversion Warrants expected to be issued at the closing of this offering; (xv) 7,049,447 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Exchange Investor Warrants expected to be issued at the closing of this offering; (xvi) 56,896 shares of Common Stock reserved for future issuance under the 2023 Plan; and (xvii) up to 1,030,303 shares (1,184,848 shares if the underwriters' option to purchase additional Investor Warrants is exercised in full) of Common Stock issuable upon exercise at $4.00 per share of the Investor Warrants to be issued in this offering.

Except as indicated otherwise, the discussion and table above assume no sale of Pre-Funded Units and no exercise of the underwriter's option to purchase up to 154,545 additional shares of Common Stock and/or Investor Warrants to purchase up to 154,545 additional shares of Common Stock.

THE RESALE PROSPECTUS

The registration statement of which this prospectus forms a part includes, following immediately after this prospectus, a prospectus that covers the resale of (i) 8,644,907 shares of Common Stock, (ii) up to 35,582,926 shares of Common Stock underlying warrants and (iii) up to 2,350,691 shares of Common Stock issuable upon conversion of convertible promissory notes (the "**Resale Prospectus**"). Notwithstanding the foregoing, the number of shares that will be freely tradable after this offering as a result of the Resale Prospectus is expected to be an aggregate of (i) 1,987,693 shares of Common Stock and (ii) 32,449,546 shares of common stock underlying warrants (such amounts assuming all of the Common Warrants are exchanged into the Exchange Investor Warrants at the closing of this offering and no issuance of 2022 Note Conversion Pre-Funded Warrants (in lieu of Automatic Conversion Shares) or True-Up Shares (in lieu of True-Up Pre-Funded Warrants)). Exchange Investor Warrants to purchase an aggregate of 7,049,447 will also be outstanding, but such shares are not registered for resale by the Resale Prospectus. This section provides information regarding the shares registered for resale under the Resale Prospectus.

Selling Stockholders

The Common Stock being offered by the selling stockholders in the Resale Prospectus are 2,526 shares of Common Stock (the "**2022 Inducement Shares**") issued to selling stockholders in the second and third closing of our private placement that we completed on January 18, 2023, and May 15, 2023, respectively (the "**2022 Private Placement Financing**"), Bridge Shares, True-Up Shares and those issuable to the selling stockholders, upon conversion of the 2022 Notes and exercise of the 2022 Warrants (issued in the second and third closing of our 2022 Private Placement Financing), 2022 Note Conversion Pre-Funded Warrants, placement agent warrants issued in the 2022 Private Placement Financing (the "**2022 Placement Agent Warrants**"), Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants. For additional information regarding the issuances of such securities, see "**Prospectus Summary—Recent Developments**" above. We are registering in the Resale Prospectus the shares of Common Stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for Terrence Norchi, our Chief Executive Officer; Michael Abrams, our Chief Financial Officer; Laurence Hicks, a member of our Board and holder of an ownership interest in Drake Partners LLC and Maxim Group LLC, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of Common Stock by each of the selling stockholders. The second column lists the number of shares of Common Stock beneficially owned by each selling stockholder, based on its ownership of the shares of Common Stock and warrants, as of October 25, 2023, assuming exercise of the warrants and conversion of convertible notes held by the selling stockholders on that date, without regard to any limitations on exercises. The third column lists the shares of Common Stock being offered by the Resale Prospectus by the selling stockholders. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to the Resale Prospectus.

In accordance with the terms of (i) Second Amended and Restated Registration Rights Agreement with certain of the selling stockholders or (ii) the terms of the 2022 Notes, 2022 Warrants and 2022 Placement Agent Warrants held by certain of the selling stockholders, the Resale Prospectus generally covers the resale of the sum of (A) the maximum number of shares of Common Stock issuable upon conversion of the 2022 Notes issued to the selling stockholders in the 2022 Private Placement Financing; and (B) the maximum number of shares of Common Stock issuable upon exercise of the 2022 Warrants and 2022 Placement Agent Warrant, determined as if the outstanding 2022 Notes were converted and the 2022 Warrants and 2022 Placement Agent Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Second Amended and Restated Registration Rights Agreement, 2022 Note, 2022 Warrant or 2022 Placement Agent Warrant, as applicable, without regard to any limitations on the conversion of the 2022 Notes or the exercise of the 2022 Warrants and 2022 Placement Agent Warrants.

The Resale Prospectus also covers the maximum number of shares of Common Stock issuable upon exercise of the maximum number of 2022 Note Conversion Pre-Funded Warrants that may be issuable under the 2022 Notes at the closing of this offering in lieu of Automatic Conversion Shares otherwise issuable, as if such maximum amount of 2022 Note Conversion Pre-Funded Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the 2022 Note Conversion Pre-Funded Warrants, without regard to any limitations on the exercise of 2022 Note Conversion Pre-Funded Warrants.

Additionally, the Resale Prospectus covers the maximum number of shares of Common Stock issuable upon exercise of the Uplist Conversion Warrants that are expected to be issued under the 2022 Notes at the closing of this offeing, as if such Uplist Conversion Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Uplist Conversion Warrants, without regard to any limitations on the exercise of Uplist Conversion Warrants.

In accordance with the terms of (i) Bridge Registration Rights Agreement with certain of the selling stockholders or (ii) the terms of the Bridge Warrants held by certain of the selling stockholders, the Resale Prospectus generally covers the resale of the sum of the maximum number of shares of Common Stock issuable upon exercise of the Bridge Warrants determined as if the outstanding Bridge Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Bridge Registration Rights Agreement and Bridge Warrants, as applicable, without regard to any limitations on the exercise of the Bridge Warrants.

In accordance with the terms of (i) the PIPE Registration Rights Agreement with certain of the selling stockholders or (ii) the PIPE Warrants held by certain of the selling stockholders, the Resale Prospectus generally covers the resale of the sum of the maximum number of shares of Common Stock issuable upon exercise of the PIPE Warrants determined as if the outstanding PIPE Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the PIPE Registration Rights Agreement and PIPE Warrants, as applicable, without regard to any limitations on the exercise of the PIPE Warrants.

The Resale Prospectus covers the resale of the maximum number of True-Up Shares that may be issuable under the Bridge SPA at the closing of this offering. This Resale Prospectus also covers the maximum number of shares of Common Stock issuable upon exercise of the maximum number of True-Up Pre-Funded Warrants that may be issuable under the Bridge SPA at the closing of the Primary Offering in lieu of True-Up Shares otherwise issuable, as if such maximum amount of True-Up Pre-Funded Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the True-Up Pre-Funded Warrants, without regard to any limitations on the exercise of True-Up Pre-Funded Warrants.

Under the terms of the 2022 Notes, 2022 Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants, Uplist Conversion Warrants and 2022 Note Conversion Pre-Funded Warrants a selling stockholder may not convert the notes or exercise the warrants to the extent such exercise would cause such selling stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock which would exceed 4.99% (or 9.99% if elected and as applicable) of our then outstanding Common Stock following such exercise, excluding for purposes of such determination shares of Common Stock issuable upon conversion of the 2022 Notes and exercise of the 2022 Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants, Uplist Conversion Warrants and 2022 Note Conversion Pre-Funded Warrants which have not been exercised. The number of shares in the second column does not reflect this limitation. The selling stockholders may sell all, some or none of their shares in the offering under the Resale Prospectus.

Name of Selling Stockholder	Number of shares of Common Stock Owned Prior to Offering	Maximum Number of shares of Common Stock to be Sold Pursuant to this Prospectus	Number of shares of Common Stock Owned After Offering
Oasis Capital, LLC (1)	614,733	11,255,160	974,189
District 2 Capital Fund LP (2)	210,625	4,321,292	486,721
Bigger Capital Fund, LP (3)	210,754	4,321,287	486,784
Cavalry Fund I LP (4)	191,052	5,427,670	964,175
Sanibel Island Associates LLC (Anestis) (5)	21,766	309,792	16,171
Michael & Ana Parker (6)	280,168	4,077,059	225,560
ProActive Capital Partners, L.P. (7)	69,470	1,019,106	52,967
Michael Abrams (8)	11,407	154,732	8,172
Jason Adelman (9)	21,614	309,465	16,344
Centurion Therapeutics, Inc. (10)	23,802	332,154	1,132
Drake Partners LLC (11)	11,245	154,732	8,189
Terrence Norchi (12)	19,821	103,156	13,923
Michael Tuttle (13)	31,736	442,872	1,509
Trina Whitridge GST Trust (14)	76,977	1,122,911	58,069
Mark Woolfson (15)	27,018	386,826	20,429
Steve Woolfson (16)	30,620	438,407	23,153
Walleye Opportunities Master Fund Ltd (17)	37,500	3,284,350	957,209
Sixth Borough Capital Fund, LP (18)	37,500	773,221	272,902
Brandt Wilson and Mona Wilson (19)	37,500	3,284,350	957,209
Andrew Stahl (20)	37,500	3,284,350	957,209
John Robert Baleno (21)	9,091	154,545	54,545
Roxanne Rosetto (22)	4,546	77,273	27,273
Robert Forster (23)	22,727	386,362	136,364
Thomas Pilgrim (24)	9,091	154,545	54,545
Rajiv P Dewan (25)	5,000	85,000	30,000
David L McClain (26)	2,500	42,500	15,000
Norman McClain (27)	5,000	85,000	30,000
Ronald Nash (28)	4,546	77,273	27,273
Richard Molinsky (29)	6,818	115,906	40,909
George Benashivili (30)	1,288	21,887	7,725
Dan Armstrong (31)	9,091	154,545	54,545
CNP Consulting (32)	1,750	29,750	10,500
Ivan Chi Vei Tong (33)	2,500	42,500	15,000
Genmark Holdings (34)	9,091	154,545	54,545
Stephen Ross (35)	2,273	38,636	13,637
Efrat Investments (36)	4,546	77,273	27,273
Daniel Shalhoub (37)	2,273	38,636	13,637
Jeffrey and Shiela Negus (38)	2,273	38,636	13,637
Maxim Group LLC (39)	4,759	821	3,939
Total	2,111,968	46,578,524	7,132,359

1. Assuming exercise or conversion of the warrants or convertible notes held by Oasis Capital, LLC ("**Oasis**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Oasis may be deemed to have beneficial ownership of 12,367,462 shares of Common Stock, which consists of the following: (i) 1,798 2022 Inducement Shares; (ii) 33,892 Bridge Shares; (iii) 1,116,834 True-Up Shares; (v) 538,180 Conversion Shares; (vi) 269,090 Automatic Conversion Shares; (vii) 23,962 2022 Warrant Shares; (viii) 269,090 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 319,096 Common Warrant Shares; (x) 125,656 Bridge Pre-Funded Warrant Shares; (xi) 6,868,469 Uplist Conversion Warrant Shares; (xii) 1,116,834 True-Up Pre-Funded Warrant Shares; (xiii) 286,130 PIPE Investor Warrant Shares; and (xiv) 286,130 PIPE Pre-Funded Warrant Shares.

2. Assuming exercise or conversion of the warrants or convertible notes held by District 2 Capital Fund LP ("**District 2**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, District 2 may be deemed to have beneficial ownership of 4,877,423 shares of Common Stock, which consists of the following: (i) 236 2022 Inducement Shares; (ii) 17,897 Bridge Shares; (iii) 558,393 True-Up Shares; (v) 181,250 Conversion Shares; (vi) 90,625 Automatic Conversion Shares; (vii) 3,144 2022 Warrant Shares; (viii) 90,625 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 159,541 Common Warrant Shares; (x) 61,874 Bridge Pre-Funded Warrant Shares; (xi) 2,313,185 Uplist Conversion Warrant Shares; (xii) 558,393 True-Up Pre-Funded Warrant Shares; (xiii) 143,065 PIPE Investor Warrant Shares; and (xiv) 143,065 PIPE Pre-Funded Warrant Shares.

3. Assuming exercise or conversion of the warrants or convertible notes held by Bigger Capital Fund, LP ("**Bigger Capital**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Bigger Capital may be deemed to have beneficial ownership of 4,877,417 shares of Common Stock, which consists of the following: (i) 236 2022 Inducement Shares; (ii) 17,961 Bridge Shares; (iii) 558,391 True-Up Shares; (v) 181,250 Conversion Shares; (vi) 90,625 Automatic Conversion Shares; (vii) 3,144 2022 Warrant Shares; (viii) 90,625 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 159,541 Common Warrant Shares; (x) 61,809 Bridge Pre-Funded Warrant Shares; (xi) 2,313,185 Uplist Conversion Warrant Shares; (xii) 558,391 True-Up Pre-Funded Warrant Shares; (xiii) 143,065 PIPE Investor Warrant Shares; and (xiv) 143,065 PIPE Pre-Funded Warrant Shares.

4. Assuming exercise or conversion of the warrants or convertible notes held by Cavalry Fund I, LP ("**Cavalry**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Cavalry may be deemed to have beneficial ownership of 6,539,917 shares of Common Stock, which consists of the following: (i) 189 2022 Inducement Shares; (ii) 36,406 Bridge Shares; (iii) 1,116,771 True-Up Shares; (v) 145,000 Conversion Shares; (vi) 72,500 Automatic Conversion Shares; (vii) 2,515 2022 Warrant Shares; (viii) 72,500 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 319,078 Common Warrant Shares; (x) 123,133 Bridge Pre-Funded Warrant Shares; (xi) 1,850,548 Uplist Conversion Warrant Shares; (xii) 1,116,771 True-Up Pre-Funded Warrant Shares; (xiii) 286,130 PIPE Investor Warrant Shares; and (xiv) 286,130 PIPE Pre-Funded Warrant Shares.

5. Assuming exercise or conversion of the warrants or convertible notes held by Sanibel Island Associates LLC (Anestis) ("**Sanibel**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Sanibel may be deemed to have beneficial ownership of 325,232 shares of Common Stock, which consists of the following: (i) 23 2022 Inducement Shares; (ii) 2,573 Bridge Shares; (iii) 18,012 True-Up Shares; (iv) 18,000 Conversion Shares; (v) 9,000 Automatic Conversion Shares; (vi) 302 2022 Warrant Shares; (vii) 9,000 2022 Note Conversion Pre-Funded Warrant Shares; (viii) 5,147 Common Warrant Shares; (ix) 229,724 Uplist Conversion Warrant Shares; and (x) 18,012 True-Up Pre-Funded Warrant Shares.

6. Assuming or conversion of the warrants or convertible notes held by Ana Parker or her affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Ms. Parker may be deemed to have beneficial ownership of 4,283,116 shares of Common Stock, which consists of the following: (i) 24,035 Bridge Shares; (ii) 240,399 True-Up Shares; (iii) 236,631 Conversion Shares; (iv) 118,316 Automatic Conversion Shares; (v) 118,316 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 68,686 Common Warrant Shares; (vii) 10,308 Bridge Pre-Funded Warrant Shares; (viii) 3,019,969 Uplist Conversion Warrant Shares; and (ix) 240,399 True-Up Pre-Funded Warrant Shares.

7. Assuming exercise of the warrants held by ProActive Capital Partners, L.P. ("**ProActive**") as of October 25, 2023 and disregarding any limitations on exercise applicable to such warrants, ProActive may be deemed to have beneficial ownership of 1,070,564 shares of Common Stock, which consists of the following: (i) 8,576 Bridge Shares; (ii) 60,034 True-Up Shares; (iii) 59,158 Conversion Shares; (iv) 29,579 Automatic Conversion Shares; (v) 29,579 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 17,153 Common Warrant Shares; (vii) 754,993 Uplist Conversion Warrant Shares; and (viii) 60,034 True-Up Pre-Funded Warrant Shares.

8. Assuming exercise or conversion of the warrants or convertible notes held by Michael Abrams or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Abrams may be deemed to have beneficial ownership of 162,451 shares of Common Stock, which consists of the following: (i) 1,287 Bridge Shares; (ii) 9,005 True-Up Shares; (iii) 9,000 Conversion Shares; (iv) 4,500 Automatic Conversion Shares; (v) 4,500 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 2,573 Common Warrant Shares; (vii) 114,862 Uplist Conversion Warrant Shares; and (viii) 9,005 True-Up Pre-Funded Warrant Shares.

9. Assuming exercise or conversion of the warrants or convertible notes held by Jason Adelman or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Adelman may be deemed to have beneficial ownership of 324,903 shares of Common Stock, which consists of the following: (i) 2,573 Bridge Shares; (ii) 18,011 True-Up Shares; (iii) 18,000 Conversion Shares; (iv) 9,000 Automatic Conversion Shares; (v) 9,000 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 5,146 Common Warrant Shares; (vii) 229,724 Uplist Conversion Warrant Shares; and (viii) 18,011 True-Up Pre-Funded Warrant Shares.

10. Assuming exercise or conversion of the warrants or convertible notes held by Centurion Therapeutics, Inc. ("Centurion") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Centurion may be deemed to have beneficial ownership of 332,154 shares of Common Stock, which consists of the following: (i) 22,500 Conversion Shares; (ii) 11,250 Automatic Conversion Shares; (iii) 11,250 2022 Note Conversion Pre-Funded Warrant Shares; and (iv) 287,154 Uplist Conversion Warrant Shares.

11. Assuming exercise or conversion of the warrants or convertible notes held by Drake Partners LLC ("**Drake Partners**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Drake Partners may be deemed to have beneficial ownership of 162,451 shares of Common Stock, which consists of the following: (i) 1,287 Bridge Shares; (ii) 9,005 True-Up Shares; (iii) 9,000 Conversion Shares; (iv) 4,500 Automatic Conversion Shares; (v) 4,500 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 2,573 Common Warrant Shares; (vii) 114,862 Uplist Conversion Warrant Shares; and (viii) 9,005 True-Up Pre-Funded Warrant Shares.

12. Assuming exercise or conversion of the warrants or convertible notes held by Terrence Norchi or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Norchi may be deemed to have beneficial ownership of 108,303 shares of Common Stock, which consists of the following: (i) 858 Bridge Shares; (ii) 6,004 True-Up Shares; (iii) 6,000 Conversion Shares; (iv) 3,000 Automatic Conversion Shares; (v) 3,000 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 1,716 Common Warrant Shares; (vii) 76,575 Uplist Conversion Warrant Shares; and (viii) 6,004 True-Up Pre-Funded Warrant Shares.

13. Assuming exercise or conversion of the warrants or convertible notes held by Michael Tuttle or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Tuttle Norchi may be deemed to have beneficial ownership of 442,872 shares of Common Stock, which consists of the following: (i) 30,000 Conversion Shares; (ii) 15,000 Automatic Conversion Shares; (iii) 15,000 11,250 2022 Note Conversion Pre-Funded Warrant Shares; and (iv) 382,872 Uplist Conversion Warrant Shares.

14. Assuming exercise or conversion of the warrants or convertible notes held by Trina Whitridge GST Trust ("**Whitridge**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Whitridge may be deemed to have beneficial ownership of 1,179,516 shares of Common Stock, which consists of the following: (i) 45 2022 Inducement Shares; (ii) 9,434 Bridge Shares; (iii) 66,038 True-Up Shares (iv) 65,158 Conversion Shares; (v) 32,579 Automatic Conversion Shares; (vi) 604 2022 Warrant Shares; (vii) 32,579 2022 Note Conversion Pre-Funded Warrant Shares; (viii) 18,868 Common Warrant Shares; (ix) 831,568 Uplist Conversion Warrant Shares; and (x) 66,038 True-Up Pre-Funded Warrant Shares.

15. Assuming exercise or conversion of the warrants or convertible notes held by Mark Woolfson or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Woolfson may be deemed to have beneficial ownership of 406,123 shares of Common Stock, which consists of the following: (i) 3,216 Bridge Shares; (ii) 22,512 True-Up Shares; (iii) 22,500 Conversion Shares; (iv) 11,250 Automatic Conversion Shares; (v) 11,250 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 6,432 Common Warrant Shares; (vii) 287,154 Uplist Conversion Warrant Shares; and (viii) 22,512 True-Up Pre-Funded Warrant Shares.

16. Assuming exercise or conversion of the warrants or convertible notes held by Steve Woolfson or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Woolfson be deemed to have beneficial ownership of 460,277 shares of Common Stock, which consists of the following: (i) 3,645 Bridge Shares; (ii) 25,515 True-Up Shares; (iii) 25,500 Conversion Shares; (iv) 12,750 Automatic Conversion Shares; (v) 12,750 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 7,290 Common Warrant Shares; (vii) 325,442 Uplist Conversion Warrant Shares; and (viii) 25,515 True-Up Pre-Funded Warrant Shares.

17. Assuming exercise or conversion of the warrants held by Walleye Opportunities Master Fund Ltd ("**Walleye**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Walleye may be deemed to have beneficial ownership of 4,396,573 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 1,116,743 True-Up Shares; (iv) 319,070 Common Warrant Shares; (v) 122,035 Bridge Pre-Funded Warrant Shares; (vi) 1,116,743 True-Up Pre-Funded Warrant Shares; (vii) 286,130 PIPE Investor Warrant Shares; and (viii) 286,130 PIPE Pre-Funded Warrant Shares.

18. Assuming exercise or conversion of the warrants held by Sixth Borough Capital Fund, LP ("**Sixth Borough**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Sixth Borough may be deemed to have beneficial ownership of 1,046,123 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 318,385 True-Up Shares; (iii) 90,967 Common Warrant Shares; (iv) 7,984 Bridge Pre-Funded Warrant Shares; and (v) 318,385 True-Up Pre-Funded Warrant Shares.

19. Assuming exercise or conversion of the warrants held by Brandt Wilson and Mona Wilson or their affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Wilson and Mrs. Wilson may be deemed to have beneficial ownership of 4,396,573 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 1,116,743 True-Up Shares; (iv) 319,070 Common Warrant Shares; (v) 122,035 Bridge Pre-Funded Warrant Shares; (vi) 1,116,743 True-Up Pre-Funded Warrant Shares; (vii) 286,130 PIPE Investor Warrant Shares; and (viii) 286,130 PIPE Pre-Funded Warrant Shares.

20. Assuming exercise or conversion of the warrants held by Andrew Stahl or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Stahl may be deemed to have beneficial ownership of 4,396,573 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 1,116,743 True-Up Shares; (iv) 319,070 Common Warrant Shares; (v) 122,035 Bridge Pre-Funded Warrant Shares; (vi) 1,116,743 True-Up Pre-Funded Warrant Shares; (vii) 286,130 PIPE Investor Warrant Shares; and (viii) 286,130 PIPE Pre-Funded Warrant Shares.

Plan of Distribution

Each selling stockholder of the securities covered by the Resale Prospectus and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered by the Resale Prospectus on the principal Trading Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker dealer solicits purchasers;
- block trades in which the broker dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker dealer as principal and resale by the broker dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker dealers that agree with the selling stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under the Resale Prospectus.

Broker dealers engaged by the selling stockholders may arrange for other brokers dealers to participate in sales. Broker dealers may receive commissions or discounts from the selling stockholders (or, if any broker dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to the Resale Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to the Resale Prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep the Resale Prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to the Resale Prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling stockholders or any other person.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the other sections of this prospectus, including our audited annual consolidated financial statements and related notes beginning on page F-1 of this prospectus. This discussion and analysis contains forward-looking statements, including information about possible or assumed results of our financial condition, operations, plans, objectives and performance that involve risks, uncertainties and assumptions. See "**Cautionary Note Regarding Forward-Looking Statements**" beginning on page 2 of this prospectus. Our actual results may differ materially from those anticipated or suggested in any forward-looking statements.*

Corporate Overview

Arch Therapeutics, Inc. (together with its subsidiary, the "**Company**" or "**Arch**") arose from the June 26, 2013 merger (the "**Merger**") of three entities previously known as Arch Biosurgery, Inc., Almah, Inc., and Arch Acquisition Corporation, respectively.

Arch Biosurgery, Inc. ("**ABS**") is a biotechnology company that was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc., changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. on April 7, 2008, and, as part of the Merger transaction, changed its name from Arch Therapeutics, Inc. to Arch Biosurgery.

Almah, Inc., was incorporated under the laws of the State of Nevada on September 16, 2009 and, as part of the Merger transaction, changed its name to Arch Therapeutics, Inc. and abandoned both its prior business plan and operations in order to adopt those of ABS.

Arch Acquisition Corporation, or Merger Sub, was a wholly owned subsidiary of Almah, Inc., formed for the purpose of the Merger transaction, pursuant to which Merger Sub merged with and into ABS, and ABS thereafter became the wholly owned subsidiary of the Company.

The Company's principal offices are located in Framingham, Massachusetts.

The Company has recently devoted substantially all of its operational effort to the market adoption and commercial sales of AC5® Advanced Wound System, its first product. To date, the Company has principally raised capital through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of shares of the Company's common stock, $0.001 par value per share ("**Common Stock**"), and warrants.

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of current and potential products. However, there can be no assurance that the Company will be successful in securing additional capital when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern for one year past the issuance of the financial statements. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Liquidity

We devote a significant amount of our efforts on fundraising, planning and conducting clinical trials, activities in connection with obtaining regulatory approval, and product research. We have principally raised capital through borrowings, the issuance of convertible debt, and units consisting of Common Stock and warrants to fund our operations. For the year ended September 30, 2022, we had a net loss of $5,275,854 versus a net loss of $6,240,482 in the prior year. The losses for each of the years ended September 30, 2022 and 2021 can be attributable to research and development expense, including regulatory approval and product research, and general and administrative costs, primarily relating to legal costs associated with intellectual property and patent application, general corporate legal expense all of which were partially offset by adjustments to the derivative liabilities and, for the fiscal year ended September 30, 2021, a gain on the forgiveness of the loan issued by First Republic Bank under the Paycheck Protection Program, established under the Coronavirus Aid, Relief, and Economic Security Act. For the nine months ended June 30, 2023, we had a net loss of $4,525,640 versus a net loss of $3,387,295 in the same period in fiscal year 2022. Cash used in operating activities decreased $1,502,553 during the year ended September 30, 2022 to $4,456,075, compared to $5,958,628 for the year ended September 30, 2021. Cash used in operating activities during the nine months ended June 30, 2023 was $2,147,480, compared to $2,786,642 for the same period in fiscal year 2022.

Business Overview

We are a biotechnology company marketing and developing a number of products based on our innovative AC5® self-assembling technology platform. We believe these products can be important advances in the field of stasis and barrier applications, which includes managing wounds created during surgery, trauma, interventional care or disease; stopping bleeding (hemostasis); and controlling leaking (sealant). We have recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5 Advanced Wound System, our first product. Our goal is to make care faster and safer for patients with products for use on external wounds, which we refer to as Dermal Sciences applications, and products for use inside the body, which we refer to as BioSurgery applications.

Commercial Update

During its fourth fiscal quarter ended September 30, 2023, the Company experienced a significant increase in AC5 orders, posting record monthly order volumes during both August and September. Taken together, orders from August and September represented more than half of total fiscal year volume, and September orders more than doubled August orders. The Company also observed favorable coverage and reimbursement decisions from multiple payors in different regions of the country with a commensurate increase in paid claims. Early in the fourth fiscal quarter, the Company received its first payment from a provider as a result of a paid claim for reimbursement of AC5 using A2020, and the number of paid claims across different payor networks increased throughout the quarter. The trend has continued into November 2023.

Core Technology

Our flagship products and product candidates are derived from our AC5 self-assembling peptide (SAP) technology platform and are sometimes referred to as AC5 or the "AC5 Devices." These include AC5 Advanced Wound System and AC5® Topical Hemostat, which have received marketing authorization as medical devices in the United States and Europe, respectively, and which are intended for skin applications, such as the management of complicated chronic wounds and acute surgical wounds. Marketing for AC5 Topical Hemostat in Europe has not initiated. Other products are in development for use in minimally invasive or open surgical procedures and include, for example, AC5-G™ for gastrointestinal endoscopic procedures and AC5-V® and AC5 Surgical Hemostat for hemostasis inside the body, all of which are currently investigational devices limited by law to investigational use.

Products based on the AC5 platform contain a proprietary biocompatible peptide that is synthesized from proteogenic, naturally occurring L-amino acids. Unlike products that contain traditional peptide sequences, when applied to a wound, AC5-based products intercalate into the interstices of the tissue and self-assemble (i.e., self-build) into a protective physical-mechanical nanoscale structure that can provide a barrier to leaking substances, such as blood, while also acting as a biodegradable scaffold that enables healing. Self-assembly is a central component of the mechanism of action of our technology. Individual AC5 peptide units readily build themselves, or self-assemble, into an ordered network of nanofibrils when in aqueous solution by the following process:

- Peptide strands line up with neighboring peptide strands, interacting via hydrogen bonds (non-covalent bonds) to form a ribbon-like structure called a beta sheet.
- This process continues such that hundreds of strands organize with charged and polar side chains oriented on one face and non-polar side chains oriented on the opposite face of the beta sheets.
- Interactions of the resulting structure with water molecules and ions results in formation nanofibrils, which extend in length and can join together to form larger nanofibers.
- This network of AC5 peptide nanofibers forms the semi-solid physical-mechanical barrier that interacts with the extracellular matrix, is responsible for sealant, hemostatic and/or other properties that may be observed even in the presence of antithrombotic agents (i.e., blood thinners), and which subsequently becomes the scaffold that supports the repair and regeneration of damaged tissue.

Based on the intended application, we believe that the underlying AC5 SAP technology can impart important features and benefits to our products that may include, for instance, stopping bleeding (hemostasis), mitigating contamination, modulating inflammation, donating moisture, and enabling an appropriate wound microenvironment conducive to healing. Furthermore, we believe that AC5 SAP technology permits cell and tissue growth and is self-healing, in that it can dynamically self-repair around migrating cells. For instance, AC5 Advanced Wound System, which is indicated for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds, is shipped and stored at room temperature, is applied directly as a liquid, can conform to irregular wound geometry, self-assembles into a wound care matrix that can provide clinicians with multi-modal support, and does not possess sticky or glue-like handling characteristics. We believe these properties enhance its utility in several settings and contribute to its user-friendly profile.

We believe that our technology lends itself to a range of potential applications for wounds inside or on the body, including those for which a hemostatic agent or sealant is needed. For instance, the results of certain preclinical and clinical investigations that either we have conducted, or others have conducted on our behalf, have shown quick and effective hemostasis with the use of AC5 SAP technology, and that time to hemostasis ("**TTH**") is comparable among test subjects regardless of whether such test subject had or had not been treated with therapeutic doses of anticoagulant or antiplatelet medications, commonly called "blood thinners." Furthermore, the transparency and physical properties of certain AC5 Devices may enable a surgeon to operate through it in order to maintain a clearer field of vision and prophylactically stop or lessen bleeding as surgery starts, a concept that we call Crystal Clear Surgery™. An example of a product that contains related features and benefits is AC5 Topical Hemostat, which is indicated for use as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound. AC5 Topical Hemostat has not yet been marketed in Europe but has received marketing authorization.

Marketing

Sales and marketing efforts for our AC5 Advanced Wound System, which has received 510(k) marketing clearance from the FDA, address the demand for improved solutions to treat challenging chronic and acute surgical wounds, with a particular early focus on diabetic foot ulcers, venous leg ulcers and pressure ulcers. Chronic wounds are typically defined as wounds that have not healed after four weeks of standard care. Approximately 4 million to 6.5 million new onset chronic wounds are estimated to occur in the U.S. annually, including approximately 700,000 to 2 million diabetic foot ulcers, 2.5 million pressure ulcers, and 1.2 million venous leg ulcers. If untreated, improperly treated or unresponsive to treatment, these wounds can ultimately lead to amputation. The 5-year mortality rate among patients with chronic wounds, especially after an amputation, is significant.

Published data on AC5 Advanced Wound System shows encouraging outcomes, including limb salvage (avoided limb loss), among patients with multiple co-morbidities and challenging chronic wounds that failed to heal despite treatment with either traditional or other advanced wound care modalities over prolonged periods of time.

We currently maintain an internal commercial team focused on driving awareness and adoption of AC5 Advanced Wound System in several targeted channels with a particular focus on physician offices and government channels, such as Veterans Health Administration hospitals ("**VA Hospitals**") and military treatment facilities ("**MTFs**"). We anticipate that material growth in the physician office setting will require product reimbursement. To that end, we submitted an application to the Centers for Medicare and Medicaid Services ("**CMS**") in July 2022 for a unique product reimbursement code. Our application was subsequently approved with a go-live date of April 1, 2023. We have launched a temporary reimbursement support program in line with CMS guidance to support commercial use and adoption of AC5 Advanced Wound System both before and after the go-live date of our unique product code (A2020). In support of the VA and MTF market, we partnered with Lovell Government Services ("**LGS**"), a Service-Disabled Veteran-Owned Small Business, as its distributor in the government channel. As a direct result of its relationship with LGS, AC5 Advanced Wound System is listed on the four major government supply schedules (ECAT, DAPA, FSS and GSA) in order to allow doctors in any VA or MTF to order AC5 Advanced Wound System. We have also established and will continue to seek partnerships with reputable, value-added independent sales distributors on a case-by-case basis to expand the overall reach and footprint of its total sales organization. Presently, our commercialization efforts and resources remain dedicated to the U.S. market for advanced wound care.

Operations

Much of our operational efforts to date, which we often perform in collaboration with partners, have included selecting compositions and formulations for our initial products; conducting preclinical studies, including safety and other tests; conducting a human trial for safety and performance of AC5; developing and conducting a human safety study to assess for irritation and sensitization potential; securing marketing authorization for our first product in the United States and in Europe; supporting surgeons performing clinical case studies; obtaining post-marketing clinical data; developing, optimizing, and validating manufacturing methods and formulations, which are particularly important components of self-assembling peptide development; developing methods for manufacturing scale-up, reproducibility, and validation; engaging with regulatory authorities to seek early regulatory guidance as well as marketing authorization for our products; sourcing and evaluating commercial partnering opportunities in the United States and abroad; and developing and protecting the intellectual property rights underlying our technology platform.

Our long-term business plan includes the following goals:

- Continue to build recent commercial momentum and grow revenues by driving awareness, adoption and payment policies for AC5 Advanced Wound System with the now-effective CMS Level II Healthcare Common Procedure Coding System ("**HCPCS**") code dedicated to the "AC5";
- conducting biocompatibility, pre-clinical, and clinical studies on our products and product candidates;
- obtaining additional marketing authorization for products in the United States, Europe, and other jurisdictions as we may determine;
- continuing to develop third party relationships to manufacture, distribute, market and otherwise commercialize our products;
- continuing to develop academic, scientific and institutional relationships to collaborate on product research and development;
- expanding and maintaining protection of our intellectual property portfolio; and
- developing additional product candidates in Dermal Sciences, BioSurgery, and other areas.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding as required to support the previously described milestones necessary to support our operations;

- work with our manufacturing partners to scale up production of product compliant with cGMP, which activities will be ongoing and tied to our development and commercialization needs;
- further clinical development of our product platform;
- assess our technology platform in order to identify and select product candidates for potential advancement into development;
- seek regulatory input to guide activities related to expanded and new product marketing authorizations;
- continue to expand and enhance our financial and operational reporting and controls;
- pursue commercial partnerships; and
- expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and/or adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio.

In addition to capital required for operating expenses, depending upon input from regulatory authorities, authorized representatives, patent and trademark offices, or other agencies in the US, EU or elsewhere, as well as for potential additional regulatory filings and approvals during the approximately next two years, additional capital will be required.

We have no commitments for any future capital. We will require significant additional financing to fund our planned operations, including further research and development relating to AC5, seeking regulatory approval of any product we may choose to develop, commercializing any product for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or business, and maintaining our intellectual property rights, pursuing new technologies and for financing the investor relations and incremental administrative costs associated with being a public corporation. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA (as defined below), PIPE SPA, as defined below and securities purchase agreement dated July 6, 2022, as amended (the "**2022 Notes SPA**"), associated with the sale of the 2022 Notes (the "**2022 Notes Financing**"), in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "Risk Factors" in this prospectus.

The estimated capital requirements potentially could increase significantly if a number of risks relating to conducting these activities were to occur, including without limitation those set forth under the heading "**Risk Factors**" in this prospectus. We anticipate that our operating and other expenses will continue to increase as we continue to implement our business plan and pursue and achieve these goals. After giving effect to the funds received in past equity and debt financings and assuming our use of that funding at the rate we presently anticipate, as of October 25, 2023, we do not believe that our current cash on hand is sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. Even if this offering is successful, we could spend our financial resources much faster than we expect, in which case we would need to raise additional capital as our current funds may not be sufficient to operate our business for the entire duration of that period.

Preclinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain preclinical bench-top and animal research and development studies, typically with assistance from our team. These third parties can include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and/or other collaborators.

We completed the biocompatibility studies required to receive marketing authorizations for AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and such test results support that the products are biocompatible. We will perform further biocompatibility testing that we deem necessary for additional indications, classifications, jurisdictions, and/or as required by regulatory authorities.

Acute and survival animal studies assessing the safety and performance of our technology have also demonstrated favorable outcomes in Dermal Sciences and BioSurgical applications.

Clinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain clinical studies and related activities, typically with assistance from our team. These third parties can include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and/or other collaborators.

We completed two clinical studies. The first study, which met its primary and secondary endpoints, assessed the safety and performance of our product candidate in 46 patients with bleeding skin wounds that resulted from excision of skin lesions and followed for 30 days. The second study assessed our product candidate on skin, determining that it was neither an irritant nor a sensitizer, and no immunogenic response or serious or other adverse events attributable to our product were reported in any of the approximately 50 enrolled volunteers. The product candidate in these studies subsequently received marketing authorization and is presently known as AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe.

Post marketing clinical case reports have been published demonstrating both efficacy and safety in a range of challenging acute surgical or chronic wounds on patients.

Commercialization

Our commercialization efforts are currently focused on Dermal Sciences. Our BioSurgery products for internal use will require additional preclinical and clinical testing before we seek marketing authorization to commercialize them.

Our Dermal Sciences products are AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and the indication for use, or purpose, for each product follows, respectively:

- Under the supervision of a health care professional, AC5 Advanced Wound System is a topical dressing used for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds.

- AC5 Topical Hemostat is intended for use locally as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound.

In practice, we envision that both products will be used in comparable wounds, including, in particular, acute or chronic wounds that require surgical intervention. Examples include, surgical excision of dead, contaminated, or damaged tissue, otherwise known as debridement, in chronic wounds; complicated wounds created during an acute surgical procedure; failed acute surgical wounds; wounds requiring wound bed preparation in advance of other procedures; wounds in need of an advanced dressing that incorporates an initial protective barrier function followed by a scaffolding or lattice function that enables healing.

We announced receipt of 510(k) premarket notification clearances for AC5 Advanced Wound System on December 17, 2018, providing marketing authorization, and on March 23, 2020, clearing use of an additional supplier and additional manufacturing processes. We announced receipt of the CE mark for AC5 Topical Hemostat on April 13, 2020.

The COVID-19 pandemic environment introduced new challenges related to product launch, marketing and sales, as clinicians and facilities are increasingly focused on managing resources, the disease, or its potential spread. We believe that these challenges have also highlighted some potential opportunities for our new technology to address certain poorly met needs. For instance, wound interventions are too often considered to be elective procedures instead of being treated essentially or emergently as National Pressure Ulcer Advisory Panel guidelines and others recommend, resulting in a projected increased risk to limb and life while elective procedures are delayed and not prioritized. Furthermore, the implications of these delays are a growing backlog of chronic wounds awaiting care and a worsening of such wounds, leading to greater morbidity, such as infection, necrosis, and amputation, and potentially mortality.

We expect our Dermal Sciences product commercialization to be gradual, initially, and moderately accelerate into new market channels. In addition to identifying and encouraging product use by key opinion leaders and early adopters, we will prioritize our focus on private and government facilities. VA Hospitals, for example, tend to have many patients whose needs we believe we can help address. We prioritized the launch of AC5 Advanced Wound System in the United States over that of AC5 Topical Hemostat in Europe to maximize operational efficiencies in light of the COVID-19 pandemic and have not yet determined when we will launch the product in Europe.

On December 13, 2021, we announced that in partnership with Lovell Government Services, our AC5 Advanced Wound System has been added to the Federal Supply Schedule and General Services Administration contracts and is approved for purchase by all federal government agencies, including the Department of VA, Indian Health Services, and Department of Defense Medical Treatment Facilities effective December 15, 2021.

On March 14, 2022, we announced the Company had entered into a distribution agreement with Centurion Therapeutics Inc. ("**Centurion**"), an exclusive strategic partner to the world's largest tissue bank, to expand sales opportunities for AC5 Advanced Wound System. Centurion distributes a comprehensive portfolio of aseptically processed human tissues to support surgeons in a broad array of specialties through over a hundred contracted wound care distributors nationwide. AC5 Advanced Wound System will be added to their advanced wound care product line as part of this distribution agreement.

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain sales and marketing activities, typically with assistance from our team. These third parties can include contract organizations, consultants, advisors, scientists, clinicians, and/or other collaborators.

The COVID-19 Pandemic Impact on Commercialization

The COVID-19 pandemic environment introduced significant challenges related to product launch, marketing and sales, as clinicians and facilities became overburdened and increasingly focused on managing resources, the disease, and the virus spread. While the overall environment has improved, many negative effects linger. We have observed the following effects at different times, and anticipate that they will variously wax and wane over time:

- the volume of elective surgical procedures has been constrained periodically, with many institutions indefinitely suspending or eliminating such procedures at times;
- healthcare facilities often have been required to ration staff and resources, including ventilators, personal protective equipment ("**PPE**"), and operating rooms, thereby negatively impacting the focus on wound care;
- clinicians often have been required to divert their time and resources to urgent COVID-19 needs;
- clinicians often have been required to quarantine due to exposure to a COVID-19 positive individual or isolate because of contracting symptomatic or asymptomatic COVID-19 disease;
- some institutions have been periodically designated "COVID Hospitals";
- access to surgeons, potential strategic partners, and facilities outside of the United States has become curtailed;
- administrators who may be required to facilitate or approve new product intake are constrained by new and other pressing priorities; and
- both clinicians and patients often try to minimize possible COVID-19 exposure, resulting in reduced access to healthcare system and essential care treatments and services.

We believe that these challenges have also highlighted some potential opportunities for our new technology to address certain poorly met needs. For instance, wound interventions are too often considered to be elective procedures instead of being treated essentially or emergently as National Pressure Ulcer Advisory Panel guidelines and others recommend, resulting in a projected increased risk to limb and life while elective procedures are delayed and not prioritized. Furthermore, the implications of these delays are a growing backlog of chronic wounds awaiting care and a worsening of such wounds, leading to greater morbidity, such as infection, necrosis, and amputation, and potentially mortality.

While highlighted by the COVID-19 pandemic, we also believe that these challenges reveal an underlying problem in the healthcare system-clinicians and other providers are being asked to accomplish more in less time with fewer resources. These resources may include higher acuity settings, such as operating rooms; expensive wound care products that may not work as well as desired; nursing time to change wound dressings; and surgeon time for managing wounds during debridement; repeat patient visits over months and often years, and others. Our COVID-19 related discussions with surgeons, economic stakeholders and other decision-making personnel often include whether AC5 Advanced Wound System may enable them to accomplish more for their patients while deploying overall fewer resources and achieving desired outcomes.

Manufacturing

We work with contract manufacturing and related organizations, including those operating under cGMP, as is required by applicable regulatory agencies for production of product that can be used for preclinical and human testing as well as for commercial use. We also have engaged and continue to engage other third parties in the United States and abroad to advise on and perform certain manufacturing and related activities, typically with assistance from our team. These third parties include academic institutions, consultants, advisors, scientists, and/or other collaborators. The activities include development of our primary product candidates, as well as generation of appropriate analytical methods, scale-up, and other procedures for use by manufacturers and/or other members of our supply chain to produce or process our products at current and/or larger scale quantities for preclinical and clinical testing and ultimately, as required marketing authorizations are obtained, commercialization.

Our products are regulated as medical devices, and as such, many of our activities have focused on optimizing traditional parameters to target specifications, biocompatibility, physical appearance, stability, and handling characteristics, among other metrics, in order to achieve the desired product. We and our partners intend to continue to monitor manufacturing processes and formulation methods closely, as success or failure in establishing and maintaining appropriate specifications may directly impact our ability to conduct additional preclinical and clinical trials and/or deliver commercial product.

Merger with ABS and Related Activities

On June 26, 2013, the Company completed the Merger with ABS, pursuant to which ABS became a wholly owned subsidiary of the Company. In contemplation of the Merger, effective June 5, 2013, the Company changed its name from Almah, Inc. to Arch Therapeutics, Inc. and changed the ticker symbol under which our Common Stock trades on the OTC Bulletin Board from "AACH" to "ARTH".

Recent Events

On July 18, 2023, the board of directors of the Company (the "**Board**") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "**Amendment**") to (i) increase the total number of authorized shares of Common Stock from 12,000,000 to 350,000,000 (the "**Authorized Share Increase**"), (ii) authorize 5,000,000 shares of "blank check" preferred stock of the Company, thereby giving the Board the authority to designate from time to time one or more series of preferred stock (the "**Blank Check Preferred**"), and (iii) provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**" and, together with the Authorized Share Increase and the Blank Check Preferred, the "**Charter Amendments**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company (the "**Majority Stockholders**") executed a written consent approving the Charter Amendments and the Company filed a preliminary Information Statement with the SEC with respect to the transactions contemplated hereby. The Company filed a definitive Information Statement with the SEC and mailed the definitive Information Statement to the Company's stockholders notifying them of the action taken by written consent on September 1, 2023. Accordingly, the Company filed the Amendment with respect to the Authorized Share Increase and the Blank Check Preferred with the Secretary of State of Nevada on September 21, 2023. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

Reverse Stock Split

On January 17, 2023, the Company effected a prior reserve stock split (the "**Prior Reverse Stock Split**") of the Common Stock at a ratio of 1-for-200. As a result of the Prior Reverse Stock Split, every two hundred (200) shares of Common Stock issued and outstanding were combined into one (1) share of Common Stock, with a proportionate 1:200 reduction in the Company's authorized Common Stock. The Prior Reverse Stock Split affected all stockholders uniformly and did not alter any stockholder's percentage interest in the Company's equity, except to the extent that the Prior Reverse Stock Split would have resulted in some stockholders owning a fractional share. No fractional shares were issued in connection with the Prior Reverse Stock Split. Any fractional shares of Common Stock resulting from the Prior Reverse Stock Split were rounded up to the nearest whole post-Prior Reverse Stock Split share and no stockholders received cash in lieu of fractional shares. The Prior Reverse Stock Split did not change the par value of the Common Stock. All outstanding securities entitling their holders to purchase shares of Common Stock or acquire shares of Common Stock, including stock options, restricted stock units, and warrants, were adjusted as a result of the Prior Reverse Stock Split, as required by the terms of those securities. The Prior Reserve Stock Split was approved by the Company's stockholders on September 29, 2022.

On January 13, 2023, the Company filed a Certificate of Amendment (the "**Certificate of Amendment**") to the Company's Amended and Restated Articles of Incorporation with the Secretary of State of the State of Nevada to increase the number of authorized shares of Common stock from 4,000,000 shares to 12,000,000 shares. The increase in the number of authorized shares was approved by the Company's stockholders on September 29, 2022.

Uplist PIPE

On November 8, 2023, the Company and certain institutional and accredited individual investors (collectively, the "**PIPE Investors**") entered into a Securities Purchase Agreement (the "**PIPE SPA**"), pursuant to which the Company has agreed to issue and sell to the PIPE Investors, and the PIPE Investors have agreed to purchase from the Company, an aggregate of (i) warrants (the "**PIPE Pre-Funded Warrants**") to purchase an aggregate of 1,716,780 shares of Common Stock (the "**PIPE Pre-Funded Warrant Shares**") and (ii) warrants (the "**PIPE Investor Warrants**" and together with the PIPE Pre-Funded Warrants, the "**PIPE Warrants**") to purchase an aggregate 1,716,780 shares of Common Stock (the "**PIPE Investor Warrant Shares**" and together with the PIPE Pre-Funded Warrant Share, the "**PIPE Warrant Shares**"), at a purchase price of $4.124 per PIPE Pre-Funded Warrant to purchase one share of Common Stock and accompanying PIPE Investor Warrant to purchase one share of Common Stock, for aggregate gross proceeds of $7.1 million, before deducting the placement agent's fees and estimated offering expenses, and expected net proceeds of $6.4 million after deducting the placement agent's fees and estimated offering expenses payable by the Company. The PIPE Pre-Funded Warrants, and PIPE Investor Warrants will be issued as part of a private placement offering authorized by the Company's board of directors (the "**Uplist PIPE**"). The Company currently intends to use the net proceeds it receives from the Uplist PIPE for product marketing and for general working capital purposes. The purpose of the Uplist PIPE is mainly to assist the Company in meeting the initial listing requirements of the Nasdaq Capital Market, including for purposes of the minimum stockholders' equity requirement and the requirement of the Company to achieve its listing in connection with a firm commitment underwritten public offering.

The closing of the Uplist PIPE is contingent upon, among other conditions, the registration statement of which this prospectus forms a part being declared effective by the SEC and the approval of the listing of the Common Stock on Nasdaq, and the closing is expected to occur immediately prior to the pricing of this offering.

The Company retained Dawson James Securities, Inc. ("**DJ**"), pursuant to a placement agency agreement, dated November 8, 2023, as placement agent in connection with the Uplist PIPE. The Company will pay DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Uplist PIPE (expected to be $566,400), will reimburse DJ for legal and other expenses of up to $150,000 and will issue to DJ, or its designees, warrants (the "**PIPE Placement Agent Warrants**") to purchase an aggregate of 85,839 shares of Common Stock. The PIPE Placement Agent Warrants will be exercisable at any time and from time to time, in whole or in part, during the five-year period commencing upon issuance, at a price per share equal to $5.15625 (which is 125% of the price per Unit sold in this offering).

PIPE Pre-Funded Warrants

The PIPE Pre-Funded Warrants (i) will have a nominal exercise price of $0.001 per share; (ii) will be exercisable immediately upon issuance; (iii) will be exercisable until all of the PIPE Pre-Funded Warrants are exercised in full; and (iv) will have have a provision preventing the exercisability of such PIPE Pre-Funded Warrants if, as a result of the exercise of the PIPE Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than either 4.99% or 9.99% of the Common Stock (the "**Ownership Limitation**") immediately after giving effect to the exercise of the PIPE Pre-Funded Warrants.

PIPE Investor Warrants

The PIPE Investor Warrants (i) will have an exercise price of $4.00 per share; (ii) will have a term of exercise equal to 5 years after their issuance date; (iii) will be exercisable immediately upon issuance; and (iv) will have a provision preventing the exercisability of such PIPE Investor Warrants if, as a result of the exercise of the PIPE Investor Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the PIPE Investor Warrants.

Pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which this offering is intended to be, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants (as defined below), Uplist Conversion Warrants (as defined below) and Exchange Investor Warrants (as defined below) for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the PIPE Investors dated November 8, 2023 (the '**PIPE Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) the closing date of the Uplist Transaction and (ii) the 60th calendar day following the date of the PIPE Registration Rights Agreement one or more registration statements to register the PIPE Warrant Shares, the Uplist Conversion Warrant Shares (as defined below) and the 2022 Note Conversion Pre-Funded Warrant Shares (as defined below) for resale under the Securities Act. The Company's failure to satisfy certain filing and effectiveness deadlines and certain other requirements set forth in the PIPE Registration Rights Agreement may subject the Company to payment of monetary penalties. The Resale Prospectus currently covers the resale of the PIPE Warrant Shares, the Uplist Conversion Warrant Shares and the 2022 Note Conversion Pre-Funded Warrant Shares.

Bridge Offering

Between July 7, 2023 and September 11, 2023, pursuant to a Securities Purchase Agreement dated July 7, 2023, as subsequently amended (the '**Bridge SPA**"), among the Company and certain institutional and accredited individual investors (collectively, the "**Bridge Investors**") the Company issued and sold to the Bridge Investors an aggregate of (i) 418,051 shares (the "**Bridge Shares**") of Common Stock; (ii) warrants (the '**Bridge Pre-Funded Warrants**") to purchase an aggregate of 756,871 shares of Common Stock (the "**Bridge Pre-Funded Warrant Shares**"); and (iii) warrants (the "**Common Warrants**" and together with the Bridge Pre-Funded Warrants, the "**Bridge Warrants**") to purchase an aggregate 2,349,826 shares of Common Stock (the '**Common Warrant Shares**" and together with the Bridge Pre-Funded Warrant Share, the "**Bridge Warrant Shares**"), at a purchase price of $2.20 per Bridge Share and accompanying Common Warrant to purchase two shares of Common Stock, and $2.192 per Bridge Pre-Funded Warrant to purchase one share of Common Stock and accompanying Common Warrant to purchase two shares of Common Stock. The Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants were issued as part of a private placement offering authorized by the Company's board of directors (the "**Bridge Offering**").

Pursuant to the Bridge SPA, the Bridge Investors agreed not to sell or otherwise transfer any of the Bridge Shares or Bridge Warrant Shares prior to the one-year anniversary of the Bridge Closing Date. In the event that a Bridge Investor purchases securities in connection with an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which this offering is intended to be, and/or in the Uplist PIPE, with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, the one-year lock-up period will no longer apply to the Bridge Shares and Bridge Warrants. The aggregate gross proceeds for the sale of the Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants was approximately $2.6 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The first closing of the sales of these securities under the Bridge SPA occurred on July 7, 2023 (the "**Bridge Closing Date**").

Under the Bridge SPA, the Company also agreed that upon the closing of the next underwritten public offering of Common Stock (a "**Qualifying Offering**"), which the Company agreed is this offering, if the effective offering price to the public per share of Common Stock (the "**Qualifying Offering Price**") is lower than $32.00 per share, then the Company shall issue additional Bridge Pre-Funded Warrants (the "**True-Up Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**True-Up Pre-Funded Warrant Shares**"), or shares of Common Stock (the "**True-Up Shares**") in lieu thereof to the extent necessary to cause the Company to meet the listing requirements of the Company's proposed trading market in the Uplist Transaction, in an amount reflecting a reduction in the purchase price paid for the Bridge Shares and Bridge Pre-Funded Warrants that equals the proportion by which the Qualifying Offering Price is less than $32.00. The Company also agreed that the Qualifying Offering Price as a result of this offering is $4.00. **Accordingly, at the closing of this offering, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, the Company expects to issue (i) True-Up Pre-Funded Warrants with an exercise price of $0.001 to purchase an aggregate of 5,695,529 shares of Common Stock and (ii) an aggregate of 2,528,812 True-Up Shares to the Bridge Investors.** The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and this offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341. The Resale Prospectus currently covers the resale of the True-Up Pre-Funded Warrant Shares and True-Up Shares.

The Company retained DJ as placement agent in connection with the Bridge Offering. The Company paid DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Bridge Offering and reimbursement of expenses of $50,000. Additionally, on September 7, 2023 the Company issued to DJ, or its designees, warrants, as subsequently amended (the "**Placement Agent Warrants**") to purchase an aggregate of 55,242 shares of Common Stock. The Placement Agent Warrants are exercisable at any time and from time to time, in whole or in part, until September 7, 2028, at a price per share equal to $2.20 (which will increase to $5.15625 at the closing of the Uplist Transaction, representing 125% of the assumed price per share of Common Stock in the Uplist Transaction, as required by FINRA).

Bridge Pre-Funded Warrants

The Bridge Pre-Funded Warrants (i) have a nominal exercise price of $0.008 per share; (ii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance, (B) 120 days after the closing date of an Uplist Transaction, and (C) the date that a registration statement registering the Bridge Pre-Funded Warrant Shares is declared effective; (iii) are exercisable until all of the Bridge Pre-Funded Warrants are exercised in full; and (iv) have a provision preventing the exercisability of such Bridge Pre-Funded Warrants if, as a result of the exercise of the Bridge Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Bridge Pre-Funded Warrants.

Common Warrants

The Common Warrants (i) have an exercise price of $8.00 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance and (B) the date that a registration statement registering the Common Warrant Shares is declared effective; (iv) have a provision permitting voluntary adjustments to the exercise price by the Company, subject to the prior written consent of the Common Warrant holder; (v) are automatically exchanged upon the closing of an Uplist Transaction for a new warrant that is identical to the warrants (other than any pre-funded warrants), if any, being issued to investors in such Uplist Transaction, with the number of shares underlying such new warrant being equal to the number of Common Warrant Shares then underlying the Common Warrant multiplied by three and (vi) have a provision preventing the exercisability of such Common Warrants if, as a result of the exercise of the Common Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Company Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Common Warrants. **Accordingly, at the closing of this offering, the Common Warrants will be cancelled and exchanged for newly issued warrants identical to the Investor Warrants to purchase an aggregate of 7,049,447 shares of Common Stock at an exercise price per share equal to the exercise price per share of the Investor Warrants (the "Exchange Investor Warrants").**

In addition, as noted above, pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the Bridge Investors dated July 7, 2023, as subsequently amended (the "**Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) 30 days following the closing date of the Uplist Transaction and (ii) November 30, 2023 one or more registration statements (any such registration statement, a "**Resale Registration Statement**") to register the Bridge Shares, the Bridge Warrant Shares and the shares of Common Stock issuable upon exercise in full of the Exchange Investor Warrants (the "**Exchange Investor Warrant Shares**") for resale under the Securities Act of 1933, as amended (the "**Securities Act**"). The Company's failure to satisfy certain filing and effectiveness deadlines with respect to a Resale Registration Statement and certain other requirements set forth in the Registration Rights Agreement may subject the Company to payment of monetary penalties. The Resale Prospectus currently covers the resale of the Bridge Shares, the Bridge Warrant Shares and the shares of Common Stock issuable upon exercise of the Placement Agent Warrants.

Note Modification Agreements

On November 8, 2023, the Company entered into an amendment ("**Amendment No. 12 to the First Notes**") with the holders of the Company's outstanding Senior Secured Convertible Promissory Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**First Notes**"), issued in connection with a private placement financing the Company completed on July 6, 2022 (the "**First Closing**"). On November 8, 2023, the Company also entered into an amendment ("**Amendment No. 12 to the Second Notes**") with the holders of the Company's outstanding Unsecured Convertible Promissory Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**Second Notes**"), issued in connection with a private placement financing the Company completed on January 18, 2023 (the "**Second Closing**"). On November 8, 2023, the Company also entered into an amendment ("**Amendment No. 7 to the Third Notes**" and, together with Amendment No. 12 to the First Notes and Amendment No. 12 to the Second Notes, the "**Amendments to the 2022 Notes**") with the holders of the Company's outstanding Unsecured Convertible Promissory Notes, as separately amended on June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**Third Notes**" and, together with the First Notes and Second Notes, the "**2022 Notes**"), issued in connection with a private placement financing the Company completed on May 15, 2023 (the "**Third Closing**").

Under the Amendments to the 2022 Notes, the following amendments to the 2022 Notes will be simultaneously effective upon the closing of the Uplist Transaction. 50% of the then outstanding principal amount of the 2022 Notes shall automatically convert (the "**Automatic Conversion**") into shares of Common Stock, with the conversion price for purposes of such Automatic Conversion being $4.00. Upon the Automatic Conversion and to the extent that the beneficial ownership of a holder of 2022 Notes (a "**Holder**" and, all holders of 2022 Notes together, the "**Holders**") would increase over the applicable Ownership Limitation, the Holder will receive pre-funded warrants (the "**2022 Note Conversion Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**2022 Note Conversion Pre-Funded Warrant Shares**") in lieu of shares of Common Stock otherwise issuable to the Holder in connection with the Automatic Conversion, which 2022 Note Conversion Pre-Funded Warrants shall have an exercise price of $0.001 per share, may be exercised on a cashless basis, shall be exercisable immediately upon issuance and shall contain a customary beneficial ownership limitation provision.

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "**Uplist Conversion Warrant**", and the shares issuable upon exercise thereof, the "**Uplist Conversion Warrant Shares**") to purchase a number of shares of Common Stock equal to 6.3812 times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price per share of $4.00 and shall otherwise be identical to the PIPE Investor Warrants. The Company also agreed in the Amendments to the 2022 Notes to file no later than sixty (60) days after the closing of this offering a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW" (the "**Uplist Conversion Warrants Exchange Offer Obligation**").

The Amendments to the 2022 Notes also prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Accordingly, it is currently anticipated that at the closing of this offering: (i) an aggregate of 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) will be issued upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, representing 50% of the $6,268,501 in principal amount currently outstanding under the 2022 Notes, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in this offering of $4.00 per share; and (ii) the Holders will be issued Uplist Conversion Warrants to purchase an aggregate of 20,000,286 shares of Common Stock, representing 6.3812 multiplied by the $3,134,250 of principal amount converted in the Automatic Conversion.

Additionally, on July 7, 2023, the Company entered into an amendment (the "**Omnibus Amendment to Notes and Warrants**") with the Holders of the 2022 Notes, amending the 2022 Notes and related warrants issued at each of the First Closing, Second Closing, and Third Closing (the "**First Warrants**", "**Second Warrants**" and "**Third Warrants**", respectively, and collectively, the "**2022 Warrants**"). Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes and 2022 Warrants were amended to modify the Most Favored Nation provisions therein to exclude the Bridge Offering.

2022 Notes

The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the issuance date until the 2022 Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes. The 2022 Notes mature January 6, 2024. Any amount of principal or interest on the 2022 Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full. As of October 25, 2023, the outstanding unpaid principal balance including all accrued interest under the 2022 Notes totaled $7,004,722.

The 2022 Notes are convertible into shares of Common Stock at the option of each Holder from the date of issuance at $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision (as defined below)), subject to adjustment, through the later of (i) January 6, 2024 (the "**Maturity Date**") or (ii) the date of payment of the Default Amount (as defined in the 2022 Notes).

The 2022 Notes contain events of default, which include, among other things, (i) the Company's failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our failure to complete an Uplist Transaction by November 15, 2023 and (iii) our default on the Uplist Conversion Warrant Exchange Offer Obligation.

The 2022 Warrants (i) have an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrants if, as a result of the exercise of the 2022 Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. Pursuant to the "**Most Favored Nation Provision**" contained in the 2022 Notes and the 2022 Warrants, as long as the 2022 Notes and 2022 Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes and 2022 Warrants of such more favorable terms, and to use best efforts to effect such terms in the 2022 Notes and 2022 Warrants.

As discussed above, it is currently anticipated that 50% of the of the $6,268,501 unpaid principal balance currently outstanding under the 2022 Notes will convert into 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) in connection with the Automatic Conversion.

Under the Second Amended and Restated Registration Rights Agreement, dated as of May 15, 2023, as amended, the Company is required to file a registration statement registering the securities issued in the Second Closing and Third Closing, including the applicable 2022 Notes and 2022 Warrants, no later than 45 days following the closing of the Uplist Transaction. The Resale Prospectus currently covers the resale of the shares of Common Stock issuable upon the Automatic Conversion, the shares of Common Stock issuable upon conversion of the 2022 Notes at their regular conversion price and the shares of Common Stock issuable upon exercise of the 2022 Warrants.

Series 1 and 2 Convertible Notes

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ("**Series 1 Notes**") and Series 2 Convertible Notes, as amended ("**Series 2 Notes**", and collectively with the Series 1 Notes, the "**Series Convertible Notes**"). The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes, which had an aggregate of $718,918 of principal and interest outstanding at the time of conversion.

As of October 25, 2023, there was $587,959 of principal and accrued interest (through maturity) outstanding under the Series 2 Notes. The Series 2 Notes have a conversion price of $400.00 and allow the Company to convert all obligations thereunder upon the Uplist Transaction, or the maturity date, using such conversion price and multiplying the obligations then outstanding by 4.5. **Accordingly, it is currently anticipated that an aggregate of 6,615 shares of Common Stock will be issued at the closing of this offering upon the conversion of the remaining outstanding amount under the Series 2 Notes.**

Insurance Financing

On July 11, 2023, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is approximately $310,000 and incurs interest at a rate of 7.49%. Per the terms of its agreement with First Insurance Funding, the Company is required to make monthly payments of approximately $32,000 through April 2024.

Warrant Exchange Agreement

On March 10, 2023, the Company entered into exchange agreements (the "**Exchange Agreements**") with each holder (the "**Warrantholders**") of the Company's outstanding Series G Warrants to purchase shares of the Company's Common Stock at an exercise price of $1,120.00 per share and the Company's outstanding Series H Warrants to purchase shares of Common Stock at an exercise price of $640.00 per share. Pursuant to the Exchange Agreements, the Warrantholders exchanged 4,252 Series G Warrants for 426 shares of Common Stock and 5,385 Series H Warrants for 1,078 shares of Common Stock.

Reimbursements and Support Program

During the month of September 2022, the Company launched and announced a reimbursement support program designed to help drive increased commercial use of the company's FDA-approved AC5 Advanced Wound System. During the fiscal year ended September 30, 2022, the Company invoiced and shipped a total of 33 units, of which 23 units were shipped in connection with the launch of the Company's reimbursement support program. Under the terms of the program, the invoice amount may be adjusted through full or partial write-offs based on actual reimbursement amounts paid by CMS for AC5 units applied and billed by doctors. As such, revenue, if any, for the units shipped in connection with the Company's reimbursement support program will be booked in future periods when all conditions have been satisfied.

Results of Operations

The following discussion of our results of operations should be read together with the consolidated financial statements included in this prospectus and the notes thereto. Our historical results of operations and the period-to-period comparisons of our results of operations that follow are not necessarily indicative of future results.

Nine Months Ended June 30, 2023 Compared to Nine Months Ended June 30, 2022

	June 30, 2023 ($)	June 30, 2022 ($)	Increase (Decrease) ($)
Revenue	36,207	14,086	22,121
Operating Expense:			
Cost of revenues	54,882	51,363	3,519
Selling, general and administrative	3,225,753	3,308,227	(82,474)
Research and development	471,135	922,120	(450,985)
Loss from Operations	(3,715,563)	(4,267,624)	(552,061)
Other (Expense) Income	(810,077)	880,329	1,690,406
Net loss	(4,525,640)	(3,387,295)	(1,138,345)

Revenue

Revenue for the nine months ended June 30, 2023 was $36,207, an increase of $22,121 compared to revenue of $14,086 for the nine months ended June 30, 2022. Revenue for the nine months ended June 30, 2023 and 2022 was primarily the result of transactions into VA Hospitals through our distribution partner, LGS.

Cost of Revenue

Cost of revenue during the nine months ended June 30, 2023 was $54,882 an increase of $3,519 compared to cost of revenue of $51,363 for the nine months ended June 30, 2022. Cost of revenue includes product costs, third party warehousing, overhead allocation, royalty and shipping costs.

Selling, General and Administrative Expense

Selling, general and administrative expense during the nine months ended June 30, 2023 was $3,225,753, a decrease of $82,474 compared to $3,308,227 for the nine months ended June 30, 2022. The decrease in selling, general and administrative expense for the nine months ended June 30, 2023 is primarily attributable to a decrease in compensation costs attributed to a reduction in headcount partially offset by an increase in legal and consulting costs.

Research and Development Expense

Research and development expense during the nine months ended June 30, 2023 was $471,135 a decrease of $450,985 compared to $922,120 for the nine months ended June 30, 2022. The decrease in research and development expense is primarily attributable to a decrease in compensation costs attributed to a reduction in headcount.

Other (Expense) Income

Other expense during the nine months ended June 30, 2023 was $810,077 an increase of $1,690,406 compared to other income of $880,329 for the nine months ended June 30, 2022. The increase in other (expense) income is primarily attributed to an increase in interest expense related to the 2022 Notes, Second Notes and Third Notes offset by a gain for the extinguishment of the Series G warrants and Series H warrants derivative liabilities during the nine months ended June 30, 2023 and the impact of the expiration of the Series F warrants during the nine months ended June 30, 2022.

Year Ended September 30, 2022 Compared to Year Ended September 30, 2021

	September 30, 2022	September 30, 2021	Increase (Decrease)
	($)	($)	($)
Revenue	15,652	11,565	4,087
Operating Expenses			
Cost of revenues	51,489	26,282	25,207
Selling, general and administrative	4,519,636	5,009,323	(489,687)
Research and development	1,153,333	1,353,084	(199,751)
Loss from Operations	(5,708,806)	(6,377,124)	668,318
Other income	432,952	136,642	296,310
Net loss	(5,275,854)	(6,240,482)	964,628

Revenue

Revenue for the year ended September 30, 2022 was $15,652, an increase of $4,087 compared to $11,565 for the year ended September 30, 2021. Revenue for the year ended September 30, 2022 was the result of four transactions into multiple VA Hospitals consisting of ten (10) total units through our distribution partner, LGS. Revenue for the year ended September 30, 2021 was $11,565, which was the result of a single transaction with an established key opinion leader and a single transaction into the Veterans Administration of one (1) unit through our distribution partner, LGS.

Cost of revenues

Cost of revenues during the year ended September 30, 2022 was $51,489, an increase of $25,207 compared to $26,282 for the year ended September 30, 2021. Cost of revenue includes product costs, third party warehousing, overhead allocation, royalty and shipping costs.

Selling, General and Administrative Expense

General and administrative expense during the year ended September 30, 2022 were $4,519,636 a decrease of $489,687 compared to $5,009,323 for the year ended September 30, 2021. The decrease in selling, general and administrative expense for the year ended September 30, 2022 is primarily attributable to decrease in legal and consulting costs partially offset by an increase in compensation costs attributed to an increase in headcount.

Research and Development Expense

Research and development expense during the year ended September 30, 2022 was $1,153,333, a decrease of $199,751 compared to $1,353,084 for the year ended September 30, 2021. The decrease in research and development expense is primarily attributable to a decrease in compensation costs, partially offset by an inventory obsolescence charge of approximately $248,000 for shelf-life, research and development and product samples.

O*ther Income*

Other income during the year ended September 30, 2022 was $432,952, an increase of $296,310 compared to total other income of $136,642 for the year ended September 30, 2021. The increase in other income is attributable to a change in fair market value of the derivative liabilities partially offset by an increase in interest expense and the gain on the forgiveness of PPP loan recorded in the year ended September 30, 2021.

Liquidity and Capital Resources

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5 Advanced Wound System. We devote a significant amount of our efforts on fundraising as well as planning and conducting product research and development and activities in connection with obtaining regulatory marketing authorization. We have principally raised capital through borrowings and the issuance of convertible debt and units consisting of Common Stock and warrants to fund our operations.

Working Capital

At June 30, 2023, we had total current assets of $1,560,018 (including cash of $86,542) and working capital deficit of $8,019,256. Our working capital as of June 30, 2023 and September 30, 2022 are summarized as follows:

	June 30, 2023	September 30, 2022
Total Current Assets	$ 1,560,018	$ 2,598,195
Total Current Liabilities	9,579,274	3,320,494
Working Capital deficit	$ (8,019,256)	$ (722,299)

Total current assets as of June 30, 2023 were $1,560,018, a decrease of $1,038,177 compared to $2,598,195 as of September 30, 2022. The decrease in current assets is primarily attributable to a decrease in cash and prepaid expenses. Our total current assets as of June 30, 2023 and September 30, 2022 were comprised primarily of cash, inventory and prepaid expenses and other current assets.

Total current liabilities as of June 30, 2023 were $9,579,274, an increase of $6,258,780 compared to $3,320,494 as of September 30, 2022. The increase is primarily due to an increase in accounts payable, the current portion of the Series 2 Convertible Notes, the current portion of the 2022 Notes, current portion of the Unsecured convertible notes, which includes both the Second Notes, the Third Notes and the Exchanged Notes, Shareholder and Third Party advances related to bridge financing and the accrued interest associated with these notes partially offset by a decrease to the amount owed in connection with the financing of certain insurance premiums and the decrease in the fair value of the derivative liability resulting from the exchange of the Series G warrants into Common Stock.

At September 30, 2022, we had total current assets of $2,598,195 (including cash of $746,940) and negative working capital of $722,299. Our working capital as of September 30, 2022 and September 30, 2021 is summarized as follows:

	September 30, 2022	September 30, 2021
Total Current Assets	$ 2,598,195	$ 3,667,745
Total Current Liabilities	3,320,494	1,727,547
Working Capital	$ (722,299)	$ 1,940,198

Total current assets as of September 30, 2022 were $2,598,195, a decrease of $1,069,550 compared to $3,667,745 as of September 30, 2021. The decrease in current assets is primarily attributable to selling, general and administrative expense and research and development expense incurred in connection with activities to develop our primary product candidate, which was partially offset by our net proceeds from our 2022 Private Placement Financing. Our total current assets as of September 2022 and 2021 were comprised primarily of cash, inventory and prepaid expense.

Total current liabilities as of September 30, 2022 were $3,320,494, an increase of $1,592,947 compared to $1,727,547 as of September 30, 2021. The increase is primarily due to an increase in accounts payable, current portion of the Series 1 Convertible Notes, current portion of the Series 1 accrued interest and the amount owed in connection with the financing of certain insurance premiums and the current portion of the derivative liability.

Cash Flow for the Nine Months Ended June 30, 2023 Compared to the Nine Months Ended June 30, 2022

	June 30, 2023	June 30, 2022
Cash Used in Operating Activities	$ (2,147,480)	$ (2,786,642)
Cash Provided by Financing Activities	1,487,082	575,000
Net decrease in Cash	$ (660,398)	$ (2,211,642)

Cash Used in Operating Activities

Cash used in operating activities decreased by $639,162 to $2,147,480 during the nine months ended June 30, 2023, compared to $2,786,642 during the nine months ended June 30, 2022. The decrease in cash used in operating activities is primarily attributable the Company managing expenses and an increase in accounts payable and accrued interest.

Cash Used in Financing Activities

Cash provided by financing activities increased by $912,082 to $1,487,082 during the nine months ended June 30, 2023, compared to $575,000 cash provided by financing activities during the nine months ended June 30, 2022. For the nine months ended June 30, 2023, the cash provided by financing activities was attributable to the Second Closing of the 2022 Convertible Note Offering, the Third Closing of the 2022 Convertible Note Offering and shareholder advances, which was partially offset by payments made in connection with the financing of certain insurance premiums. For the nine months ended June 30, 2022, the cash provided by financing activities resulted from net proceeds of $575,000 raised from the advances from investors.

Ca*sh Flow for the Year Ended September 30, 2022 Compared to the Year Ended September 30, 2021*

	September 30, 2022	September 30, 2021
Cash Used in Operating Activities	$ (4,456,075)	$ (5,958,628)
Cash Used in Investing Activities	-	(3,275)
Cash Provided by Financing Activities	2,936,376	7,269,233
Net Increase (decrease) in Cash	$ (1,519,699)	$ 1,307,330

Cash Used in Operating Activities

Cash used in operating activities decreased $1,502,553 to $4,456,075 during the fiscal year ended September 30, 2022 compared to $5,958,628 for the fiscal year ended September 30, 2021. The decrease in cash used in operating activities is primarily attributable to an increase in accounts payable, primarily attributable to increased legal fees, product costs and consulting fees, and accrued interest, which was partially offset by an increase in inventory.

Cash Used in Investing Activities

Cash used in investing activities decreased $3,275 to $0 during the fiscal year ended September 30, 2022, compared to $3,275 during the fiscal year ended September 30, 2021. For the fiscal year ended September 30, 2021, cash used in investing activities is attributed to computer hardware purchases.

Cash Provided by Financing Activities

Cash provided by financing activities decreased $4,332,857, to $2,936,376 during the fiscal year ended September 30, 2022, compared to $7,269,233 the fiscal year ended September 30, 2021. For the year ended September 30, 2022, the cash provided by financing activities resulted from net proceeds of $2,969,586 raised from the issuance of senior secured convertible notes, warrants and inducement shares partially offset by repayment of financed insurance premium. For the year ended September 30, 2021, the cash provided by financing activities resulted from net proceeds of $6,219,233 raised from issuance of Common Stock and warrants in the 2021 Financing and $1,050,000 from the issuance of Series 2 Convertible Notes.

Cash Requirements

We anticipate that our operating expenses, interest expense and other expenses will increase significantly as we continue to implement our business plan and pursue our operational goals. Depending upon additional input from EU and US regulatory authorities, however, we do not expect to generate sufficient revenues from operations before we will need to raise additional capital. Further, our estimates regarding our use of cash could change if we encounter unanticipated difficulties or other issues arise, including without limitation those set forth under the heading "**Risk Factors**" in this prospectus in which case our current funds may not be sufficient to operate our business for the period we expect.

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5 Advanced Wound System. That revenue will not be sufficient to fund our business operations and we will need to obtain additional funding from external sources for the foreseeable future. We do not have any commitments for future capital. Significant additional financing will be required to fund our planned operations in the near term and in future periods, including research and development activities relating to our potential new product candidates, seeking regulatory approval of any other product candidates we may choose to develop, commercializing any product candidates for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or businesses, and maintaining our intellectual property rights and pursuing rights to new technologies. We may not be able to obtain additional financing on commercially reasonable or acceptable terms when needed, or at all. If we cannot raise the money that we need in order to continue to develop our business, we will be forced to delay, scale back or eliminate some or all of our proposed operations. If any of these were to occur, there is a substantial risk that our business would fail, and our stockholders could lose all of their investments.

As previously noted, since inception we have funded our operations primarily through equity and debt financings and we expect to continue to seek to do so in the future. If we obtain additional financing by issuing equity securities, our existing stockholders' ownership will be diluted. Additionally, the terms of securities we may issue in future capital-raising transactions may be more favorable for our new investors, and in particular may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have additional dilutive effects. If we obtain additional financing by incurring debt, we may become subject to significant limitations and restrictions on our operations pursuant to the terms of any loan or credit agreement governing the debt. Further, obtaining any loan, assuming a loan would be available when needed on acceptable terms, would increase our liabilities and future cash commitments. We may also seek funding from collaboration or licensing arrangements in the future, which may require that we relinquish potentially valuable rights to our product candidates or proprietary technologies or grant licenses on terms that are not favorable to us. Moreover, regardless of the manner in which we seek to raise capital, we may incur substantial costs in those pursuits, including investment banking fees, legal fees, accounting fees, printing and distribution expenses and other related costs. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA and 2022 Notes SPA, associated with the 2022 Notes Financing, in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "**Risk Factors**" in this prospectus.

Going Concern

We have commenced commercial sales of our first product, AC5 Advanced Wound System. From inception, we have had recurring losses from operations. The continuation of our business as a going concern is dependent upon raising additional capital and eventually attaining and maintaining profitable operations. As of June 30, 2023, there is substantial doubt about the Company's ability to continue as a going concern. The financial statements included in this prospectus do not include any adjustments that might be necessary should operations discontinue.

Critical Accounting Policies and Significant Judgments and Estimates

Pursuant to certain disclosure guidance issued by the SEC, the SEC defines "critical accounting policies" as those that require the application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. We do not believe the company has any accounts or circumstances that carry a significant level of estimation uncertainty. Our critical accounting policies that we anticipate will require the application of our most difficult, subjective or complex judgments are as follows:

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with the Financial Accounting Standards Board ("**FASB**") Accounting Standards Codification ("**ASC**") Topic 815, *Derivatives and Hedging*. Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate.

Inventories

Inventories are stated at the lower of cost or net realizable value. The cost of inventories comprises expenditures incurred in acquiring the inventories, the cost of conversion and other costs incurred in bringing them to their existing location and condition. The cost of raw materials, work-in-progress and finished goods and other products are determined on a First in First out (FiFo) basis. When determining net realizable value, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors in evaluating net realizable value.

Complex Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks. The Company evaluates its financial instruments, including warrants, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. The Company values its derivatives using the Black-Scholes option-pricing model or other acceptable valuation models, including Monte-Carlo simulations. Derivative instruments are valued at inception, upon events such as an exercise of the underlying financial instrument, and at subsequent reporting periods. The classification of derivative instruments, including whether such instruments should be recorded as liabilities, is re-assessed at the end of each reporting period.

The Company reviews the terms of debt instruments, equity instruments, and other financing arrangements to determine whether there are embedded derivative features, including embedded conversion options that are required to be bifurcated and accounted for separately as a derivative financial instrument. Additionally, in connection with the issuance of financing instruments, the Company may issue freestanding options and warrants, including options or warrants to non-employees in exchange for consulting or other services performed.

The Company accounts for its common stock warrants in accordance with ASC 815, Derivatives and Hedging ("**ASC 815**"). Based upon the provisions of ASC 815, the Company accounts for common stock warrants as liabilities if the warrant requires net cash settlement or gives the holder the option of net cash settlement, or it fails the equity classification criteria. The Company accounts for common stock warrants as equity if the contract requires physical settlement or net physical settlement or if the Company has the option of physical settlement or net physical settlement and the warrants meet the requirements to be classified as equity. Common stock warrants classified as liabilities are initially recorded at fair value on the grant date and remeasured at fair value each balance sheet date with the offset adjustments recorded in change in fair value of warrant liability within the consolidated statements of operations. Common stock warrants classified as equity are initially measured at fair value on the grant date and are not subsequently remeasured.

Recent Accounting Guidance

In August 2020, the FASB issued ASU 2020-06, "*Debt with Conversion and other* Options (Subtopic 470-20) and *Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40)*" ("**ASU 2020-06**"). The purpose of ASU 2020-06 is to address issues identified as a result of the complexity associated with applying generally accepted accounting principles ("**GAAP**") for certain financial instruments with characteristics of liabilities and equity. The amendments in ASU 2020-06 are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2023. Early adoption is permitted but no earlier than fiscal years beginning after December 15, 2020. The Company adopted ASU 2020-06 during our first quarter of fiscal year 2022, and the impact was considered immaterial on our consolidated financial statements.

Off-Balance Sheet Arrangements

We have no significant off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to stockholders.

OUR BUSINESS

Corporate Overview

Arch Therapeutics, Inc. (together with its subsidiary, the "**Company**" or "**Arch**") arose from the June 26, 2013 merger (the "**Merger**") of three entities previously known as Arch Biosurgery, Inc., Almah, Inc., and Arch Acquisition Corporation, respectively.

Arch Biosurgery, Inc. ("**ABS**") is a biotechnology company that was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc., changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. on April 7, 2008, and, as part of the Merger transaction, changed its name from Arch Therapeutics, Inc. to Arch Biosurgery.

Almah, Inc., was incorporated under the laws of the State of Nevada on September 16, 2009 and, as part of the Merger transaction, changed its name to Arch Therapeutics, Inc. and abandoned both its prior business plan and operations in order to adopt those of ABS.

Arch Acquisition Corporation, or Merger Sub, was a wholly owned subsidiary of Almah, Inc., formed for the purpose of the Merger transaction, pursuant to which Merger Sub merged with and into ABS, and ABS thereafter became the wholly owned subsidiary of the Company.

The Company's principal offices are located in Framingham, Massachusetts.

The Company has recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5 Advanced Wound System, its first product. To date, the Company has principally raised capital through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of Common Stock and warrants.

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of current and potential products. However, there can be no assurance that the Company will be successful in securing additional capital when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern for one year past the issuance of the financial statements. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Our Current Business

We are a biotechnology company marketing a number of products based on our innovative AC5® self-assembling technology platform. We believe these products are important advances in the field of stasis and barrier applications, which includes managing wounds created during surgery, trauma, interventional care or disease; stopping bleeding (hemostasis); and controlling leaking (sealant). We have recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5 Advanced Wound System, our first product. Our goal is to make care faster and safer for patients with products for use on external wounds, which we refer to as Dermal Sciences applications, and products for use inside the body, which we refer to as BioSurgery applications.

To date, the Company has principally raised capital through debt borrowings, the issuance of convertible debt and the issuance of units consisting of its common stock, par value $0.001 per share ("**Common Stock**"), and warrants. The Company expects to incur substantial expenses for the foreseeable future relating to the research, development, clinical trials, and commercialization of its current and potential products. As of October 25, 2023, we do not believe that our cash on hand will meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. The Company will be required to raise additional capital, obtain alternative means of financial support, or both, in order to continue to fund operations. There can be no assurance that the Company will be successful in securing additional resources when needed on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern.

Commercial Update

During its fourth fiscal quarter ended September 30, 2023, the Company experienced a significant increase in AC5 orders, posting record monthly order volumes during both August and September. Taken together, orders from August and September represented more than half of total fiscal year volume, and September orders more than doubled August orders. The Company also observed favorable coverage and reimbursement decisions from multiple payors in different regions of the country with a commensurate increase in paid claims. Early in the fourth fiscal quarter, the Company received its first payment from a provider as a result of a paid claim for reimbursement of AC5 using A2020, and the number of paid claims across different payor networks increased throughout the quarter. The trend has continued into November 2023.

Core Technology

Our flagship products and product candidates are derived from our AC5 self-assembling peptide ("**SAP**") technology platform and are sometimes referred to as AC5 or the "AC5 Devices." These include AC5 Advanced Wound System and AC5® Topical Hemostat, which have received marketing authorization as medical devices in the United States and Europe, respectively, and which are intended for skin applications, such as the management of complicated chronic wounds and acute surgical wounds. Marketing for AC5 Topical Hemostat in Europe has not initiated. Other products are in development for use in minimally invasive or open surgical procedures, and include, for example, AC5-G™ for gastrointestinal endoscopic procedures and AC5-V® and AC5® Surgical Hemostat for hemostasis inside the body, all of which are currently investigational devices limited by law to investigational use.

Products based on the AC5 platform contain a proprietary biocompatible peptide that is synthesized from proteogenic, naturally occurring L-amino acids. Unlike products that contain traditional peptide sequences, when applied to a wound, AC5-based products intercalate into the interstices of the tissue and self-assemble (i.e., self-build) into a protective physical-mechanical nanoscale structure that can provide a barrier to leaking substances, such as blood, while also acting as a biodegradable scaffold that enables healing. Self-assembly is a central component of the mechanism of action of our technology. Individual AC5 peptide units readily build themselves, or self-assemble, into an ordered network of nanofibrils when in aqueous solution by the following process:

- Peptide strands line up with neighboring peptide strands, interacting via hydrogen bonds (non-covalent bonds) to form a ribbon-like structure called a beta sheet.
- This process continues such that hundreds of strands organize with charged and polar side chains oriented on one face and non-polar side chains oriented on the opposite face of the beta sheets.
- Interactions of the resulting structure with water molecules and ions results in formation nanofibrils, which extend in length and can join together to form larger nanofibers.
- This network of AC5 peptide nanofibers forms the semi-solid physical-mechanical barrier that interacts with the extracellular matrix, is responsible for sealant, hemostatic and/or other properties that may be observed even in the presence of antithrombotic agents (i.e., blood thinners), and which subsequently becomes the scaffold that supports the repair and regeneration of damaged tissue.

Based on the intended application, we believe that the underlying AC5 SAP technology can impart important features and benefits to our products that may include, for instance, stopping bleeding (hemostasis), mitigating contamination, modulating inflammation, donating moisture, and enabling an appropriate wound microenvironment conducive to healing. Furthermore, we believe that AC5 SAP technology permits cell and tissue growth and is self-healing, in that it can dynamically self-repair around migrating cells. For instance, AC5 Advanced Wound System, which is indicated for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds, is shipped and stored at room temperature, is applied directly as a liquid, can conform to irregular wound geometry, self-assembles into a wound care matrix that can provide clinicians with multi-modal support, and does not possess sticky or glue-like handling characteristics. We believe these properties enhance its utility in several settings and contribute to its user-friendly profile.

We believe that our technology lends itself to a range of potential applications for wounds inside or on the body, including those for which a hemostatic agent or sealant is needed. For instance, the results of certain preclinical and clinical investigations that either we have conducted, or others have conducted on our behalf, have shown quick and effective hemostasis with the use of AC5 SAP technology, and that time to hemostasis ("**TTH**") is comparable among test subjects regardless of whether such test subject had or had not been treated with therapeutic doses of anticoagulant or antiplatelet medications, commonly called "blood thinners." Furthermore, the transparency and physical properties of certain AC5 Devices may enable a surgeon to operate through it in order to maintain a clearer field of vision and prophylactically stop or lessen bleeding as surgery starts, a concept that we call Crystal Clear Surgery™. An example of a product that contains related features and benefits is AC5 Topical Hemostat, which is indicated for use as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound. AC5 Topical Hemostat has not yet been marketed in Europe but has received marketing authorization.

Operations

Much of our operational efforts to date, which we often perform in collaboration with partners, have included selecting compositions and formulations for our initial products; conducting preclinical studies, including safety and other tests; conducting a human trial for safety and performance of AC5; developing and conducting a human safety study to assess for irritation and sensitization potential; securing marketing authorization for our first product in the United States and in Europe; supporting surgeons performing clinical case studies; obtaining post-marketing clinical data; developing, optimizing, and validating manufacturing methods and formulations, which are particularly important components of self-assembling peptide development; developing methods for manufacturing scale-up, reproducibility, and validation; engaging with regulatory authorities to seek early regulatory guidance as well as marketing authorization for our products; sourcing and evaluating commercial partnering opportunities in the United States and abroad; and developing and protecting the intellectual property rights underlying our technology platform.

Our long-term business plan includes the following goals:

- Continue to build recent commercial momentum and grow revenues by driving awareness, adoption and payment policies for AC5 Advanced Wound System with the now-effective Centers for Medicare and Medicaid Services ("**CMS**") Level II Healthcare Common Procedure Coding System ("**HCPCS**") code dedicated to the "AC5";
- educating the wound care field and growing commercial sales;
- conducting biocompatibility, pre-clinical, and clinical studies on our products and product candidates;
- obtaining additional marketing authorization for products in the United States, Europe, and other jurisdictions as we may determine;
- continuing to develop third party relationships to manufacture, distribute, market and otherwise commercialize our products;
- continuing to develop academic, scientific and institutional relationships to collaborate on product research and development;
- expanding and maintaining protection of our intellectual property portfolio; and
- developing additional product candidates in Dermal Sciences, BioSurgery, and other areas.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding as required to support the previously described milestones necessary to support operations;
- work with our manufacturing partners to scale up production of product compliant with cGMP, which activities will be ongoing and tied to our development and commercialization needs;
- further clinical development of our product platform;
- assess our technology platform in order to identify and select product candidates for potential advancement into development;
- seek regulatory input to guide activities related to expanded and new product marketing authorizations;
- continue to expand and enhance our financial and operational reporting and controls;
- pursue commercial partnerships; and
- expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and/or adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio.

We have no commitments for any future capital. We will require significant additional financing to fund our planned operations, including further research and development relating to AC5, seeking regulatory approval of any product we may choose to develop, commercializing any product for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or business, and maintaining our intellectual property rights, pursuing new technologies and for financing the investor relations and incremental administrative costs associated with being a public corporation. We do not presently have, nor do we expect in the near future to have, sufficient revenue to fund our business from operations, and we will need to obtain substantially all of our necessary funding from external sources for the foreseeable future. We may not be able to obtain additional financing on commercially reasonable or acceptable terms when needed, or at all. If we cannot raise the money that we need in order to continue to develop our business, we will be forced to delay, scale back or eliminate some or all of our proposed operations. If any of these were to occur, there is a substantial risk that our business would fail, and our stockholders could lose all of their investment.

Since inception, we have funded our operations primarily through debt borrowings, the issuance of convertible debt and the issuance of units consisting of Common Stock and warrants, and we may continue to seek to do so in the future. If we obtain additional financing by issuing equity securities, our existing stockholders' ownership will be diluted. The terms of securities we may issue in future capital-raising transactions may be more favorable for our new investors. Further, newly issued securities may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have additional dilutive effects. If we obtain additional financing by incurring debt, we may become subject to significant limitations and restrictions on our operations pursuant to the terms of any loan or credit agreement governing the debt. Further, obtaining any loan, assuming a loan on acceptable terms would be available when needed, would increase our liabilities and future cash commitments. We may also seek funding from additional collaboration or licensing arrangements in the future, which may require that we relinquish potentially valuable rights to our product candidates or proprietary technologies or grant licenses on terms that are not favorable to us. Moreover, regardless of the manner in which we seek to raise capital, we may incur substantial costs in those pursuits, including investment-banking fees, legal fees, accounting fees, printing and distribution expenses and other related costs. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA, PIPE SPA and securities purchase agreement dated July 6, 2022, as amended (the " **2022 Notes SPA**"), associated with the sale of the 2022 Notes (the "**2022 Notes Financing**"), in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "Risk Factors" in this prospectus.

In addition to the foregoing, our estimated capital requirements potentially could increase significantly if a number of risks relating to conducting these activities were to occur, including without limitation those set forth under the heading "**Risk Factors**" in this prospectus.

Merger with ABS and Related Activities

On June 26, 2013, the Company completed the Merger with ABS, pursuant to which ABS became a wholly owned subsidiary of the Company. In contemplation of the Merger, effective June 5, 2013, the Company changed its name from Almah, Inc. to Arch Therapeutics, Inc. and changed the ticker symbol under which its Common Stock trades on the OTC Bulletin Board from "AACH" to "ARTH."

Research and Development

Preclinical and clinical testing of our product candidates is required in order to receive regulatory marketing authorizations and to support products upon commercialization, and we anticipate that such testing will continue as deemed appropriate.

Preclinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and/or perform certain preclinical bench-top and animal research and development studies, typically with assistance from our team. These third parties include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and/or other collaborators.

We have conducted and anticipate continuing to conduct in vivo and in vitro research and development studies on our products and product candidates. A co-founding inventor of certain of our technology, Dr. Rutledge Ellis-Behnke, performed a significant portion of the early preclinical animal experiments conducted with our technology. Some of the most significant findings from Dr. Ellis-Behnke's studies have been published. Additionally, through collaborations with the National University of Ireland system and related parties, preclinical bench-top and animal research and development studies were performed in Dublin, Cork and Galway, Ireland over an approximately eight-year period that concluded in the third quarter of fiscal 2018.

Before initiating our clinical trials and submitting marketing applications for a given product in most jurisdictions, we are required to have completed a biocompatibility assessment, which typically consists of a battery of in vitro and in vivo tests. Standard biocompatibility tests, as set forth in ISO 10993 issued by the International Organization for Standardization, may include:

- in vitro cytotoxicity;
- in vitro blood compatibility;
- in vitro Ames assay (mutagenic activity);
- irritation/intracutaneous reactivity;
- sensitization (allergenic reaction);
- implantation (performed on devices that contact the body's interior);
- pyrogenicity (causing fever or inflammation);
- systemic toxicity; and
- in vitro chromosome aberration assay (structural chromosome changes).

We completed the biocompatibility studies required to receive marketing authorizations for AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and such test results support that the products are biocompatible. We will perform further biocompatibility testing that we deem necessary for additional indications, classifications, jurisdictions, and/or as required by regulatory authorities.

Acute and survival animal studies assessing safety and performance of our technology have also demonstrated favorable outcomes in Dermal Sciences and BioSurgery applications.

Porcine studies, also known as swine or pig studies, are often selected due to the morphological, physiological, and biochemical similarities between porcine skin and human skin and are very useful to assess the performance of AC5 Advanced Wound System or AC5 Topical Hemostat as a barrier and advanced wound dressing, as well as their safety and effects on healing.

In an assessment versus saline in a porcine partial thickness excision wound model, tissue response to AC5 Advanced Wound System over a 28-day follow-up period was consistent with normal wound healing and included complete re-epithelialization, normal collagen organization, and minimal inflammation and TTH was faster.

In an assessment versus both a market leading skin substitute and saline in a porcine full thickness 10 mm punch biopsy wound model, AC5 Advanced Wound System was solely associated with complete epithelialization by the end of the 11-day study.

In an assessment versus each a market leading antimicrobial burn dressing, a hydrogel, and saline in a porcine second degree burn wound model, AC5 Advanced Wound System was associated with less progression of thermal damage and less inflammation over three days.

Arch Therapeutics' technology has also demonstrated hemostasis in liver and other organs in in vivo surgical models, including rapid hemostasis within 15 seconds. In a range of small and large animal models, our compositions have been shown to stop bleeding, seal leaking, allow for normal healing, and mitigate inflammation while being biocompatible.

AC5 Surgical Hemostat demonstrated rapid average TTH when applied to a range of animal tissues. Certain surgical procedure studies have assessed TTH when using AC5 Surgical Hemostat as well as using an active control, a saline control, a peptide control, and a cautery control. The results of those tests have shown a TTH of approximately 10 - 30 seconds when AC5 Surgical Hemostat was applied, compared to 80 seconds to significantly more than 300 seconds when various control substances were applied, depending on the nature of the control substance and procedure performed. In several studies comparing AC5 Surgical Hemostat to popular commercially available branded hemostatic agents (absorbable cellulose, flowable gelatin with and without thrombin, and fibrin) applied to stop the bleeding from full thickness penetrating wounds surgically created in rat livers, AC5 Surgical Hemostat achieved hemostasis in significantly less than 30 seconds, whereas control products took from over 50% - 400% longer to achieve hemostasis.

AC5 Surgical Hemostat was also demonstrated in preclinical tests to stop surgically induced liver bleeding in animals that had been treated with therapeutic amounts of anticoagulant and antiplatelet medications, collectively known as antithrombotic medications and commonly called "blood thinners." In one preclinical study, an independent third-party research group obtained positive data assessing the use of AC5 Surgical Hemostat in animals that had been treated with therapeutic doses of the antiplatelet medications Plavix® (clopidogrel) and aspirin, alone and in combination. The results of the study were consistent with data obtained from two prior preclinical studies, in which AC5 Surgical Hemostat quickly stopped bleeding from surgical wounds created in rats following treatment with clinically relevant doses of the anticoagulant medication heparin. In these studies, the average TTH after AC5 Surgical Hemostat was applied to bleeding liver wounds in animals that had received anticoagulant medication was comparable to the average TTH as measured in their non-anticoagulated counterparts.

AC5-V was assessed for its ability to provide hemostasis after bleeding was intentionally created at vascular reconstruction sites in preclinical studies. In an acute study in swine that had been premedicated with therapeutic doses of heparin before undergoing end-to-end femoral artery anastomosis and synthetic graft to vessel anastomosis in carotid and femoral arteries, AC5-V promoted effective hemostasis at the vascular anastomotic site and allowed for clear visualization of the surgical site.

In a 14-day survival study in sheep that had been premedicated with therapeutic doses of heparin before undergoing end-to-side anastomosis between synthetic vascular grafts and carotid arteries, AC5-V promoted effective hemostasis at the vascular anastomotic site, the graft remained patent during the study as assessed by angiography and ultrasound, clinical observations were normal during the study, and tissue response as assessed by histopathological examination at the end of the study was consistent with expectations for a biodegrading implant.

AC5-G was studied in swine to assess visualization, submucosal lift generation and durability, and hemostatic and sealant performance when used during endoscopic mucosal resections and endoscopic submucosal dissections as well as hemostatic performance during endoscopic management of gastrointestinal bleeding. AC5-G was easily delivered through a 25G endoscopic injection needle into the tissue and provided a durable submucosal lift in the gastric antrum that lasted beyond 2 hours. When delivered with the visualizing agent prior to tissue dissection, AC5-G allowed for easy visualization with both snare and electrosurgical knives, and no visible bleeding was observed following polyp removal. AC5-G was also shown to provide hemostasis in actively bleeding lesions when applied with or without the visualizing agent either topically to a bleeding site or when injected into the nearby mucosa. AC5-G was found to be useful in conjunction with clips as a potential sealant when applied following application of clips to a post-polypectomy site for the purpose of mitigating leaks and potentially enabling healing.

The AC5 self-assembling peptide was studied in an experimental intraocular inflammation model of injected Lipopolysaccharide ("**LPS**"), in which an intraocular application of the peptide with LPS was associated with a marked reduction in retinal inflammation. The density of activated retinal microglial cells was significantly lower in the eyes of the study animals with LPS and AC5 than in the eyes of the LPS-only control group. The results suggest that the AC5 self-assembling peptide may reduce inflammation and may represent a new class of devices that act as anti-inflammatory agents to control ocular inflammation.

Clinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain clinical studies and related activities, typically with assistance from our team. These third parties include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and other collaborators.

In order to complete a clinical trial, we are required to enroll a sufficient number of patients to conduct the trial after obtaining each patient's informed consent in a form and substance that complies with FDA and/or other regulatory authority requirements as well as state and federal privacy and human subject protection regulations. Many factors could lead to delays or inefficiencies in conducting clinical trials, some of which are discussed under the heading "**Risk Factors**" in this prospectus. Further, we, the FDA or an institutional review board ("**IRB**") could suspend a clinical trial at any time for various reasons, including a belief that the risks to the subjects of the trial outweigh the anticipated benefits. Even if a trial is completed, the results of clinical testing may not adequately demonstrate the safety and efficacy of the device or may otherwise not be sufficient to obtain FDA clearance or approval to market the product in the U.S.

We completed two clinical studies. The first study, which met its primary and secondary endpoints, assessed the safety and performance of our product candidate in 46 patients with bleeding skin wounds that resulted from excision of skin lesions and followed for 30 days. The second study assessed our product candidate on skin, determining that it was neither an irritant nor a sensitizer, and no immunogenic response or serious or other adverse events attributable to our product were reported in any of the approximately 50 enrolled volunteers. The product candidate in these studies subsequently received marketing authorization and is presently known as AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe.

Post marketing clinical case reports have been published demonstrating both efficacy and safety in a range of challenging acute surgical or chronic wounds on patients.

Regulatory

We have engaged and continue to engage third parties in the United States ("**U.S.**") and abroad to advise on and/or perform certain regulatory activities, typically with assistance from our team. These third parties can include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and other collaborators.

Our research, development and clinical programs, as well as our manufacturing and marketing operations that may be performed by us or third-party service providers on our behalf, are subject to extensive regulation in the United States and other countries. Notably, for example, AC5 Advanced Wound System is subject to regulation as a medical device under the U.S. Food Drug and Cosmetic Act (the "**FDCA**") as implemented and enforced by the FDA and equivalent regulations that are enforced by foreign agencies in any other countries in which we pursue commercialization. The FDA and its foreign counterparts generally govern the following activities that we do or will perform or that will be performed on our behalf, as well as potentially additional activities, to ensure that products we may manufacture, promote and distribute domestically or export internationally are safe and effective for their intended uses:

- product design, preclinical and clinical development and manufacture;
- product premarket clearance and approval;
- product safety, testing, labeling and storage;
- certain supply chain changes;
- record keeping procedures;
- product marketing, sales and distribution; and
- post-marketing surveillance, complaint handling, medical device reporting, reporting of deaths, serious injuries or device malfunctions and repair or recall of products.

Medical Device Classification in the United States and Europe

AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe are classified as medical devices. Generally, a product is a medical device if it requires neither metabolic nor chemical activity to achieve the desired effect. Furthermore, a medical device can achieve its desired effects without requiring a body (animal/human), whereas a drug or a biologic requires a body in order to operate. Self-assembly, which is the desired effect and can occur outside of a body, is accordingly consistent with the medical device definition.

Medical devices in the United States and Europe are classified along a spectrum on the basis of the amount of risk to the patient associated with the medical device and the controls deemed necessary to reasonably ensure their safety and effectiveness. Class III status, which is the higher-level classification for devices compared to Classes II and I, involves additional procedures and regulatory scrutiny of the product candidate to obtain approvals. Class III devices are those that are deemed to pose the greatest risks, such as life-sustaining, life-supporting or implantable devices, or that have a new intended use or that use advanced technology not substantially equivalent to that of a legally marketed device.

As a result of the intended use of and the novel technology on which our products and product candidates are based, in general, we anticipate that they would typically be regulated as either Class II or Class III medical device in these jurisdictions, depending upon the intended use. Specifically, AC5 Advanced Wound System is a Class II medical device in the United States, and AC5 Topical Hemostat is a Class IIb medical device in Europe.

In the United States, the FDA recognizes these classes of medical devices:

- Class I, requiring general controls, including labeling, device listing, reporting and, for some products, adherence to good manufacturing practices through the FDA's quality system regulations and pre-market notification;
- Class II, requiring general controls and special controls, which may include performance standards and post-market surveillance; or
- Class III, requiring general controls and approval of a premarket approval application ("**PMA**"), which may include post-market approval conditions and post-market surveillance.

European regulatory authorities, likewise, recognize several classes of medical devices. Classification involves rules found in the European Union Medical Device Directive and is driven in part by the device's degree of contact with the patient, invasiveness, active nature, and indications for use. The medical device classes recognized in the EU are:

- Class IIa, which are considered low-medium risk devices and require certification by a notified body;
- Class IIb, which are considered medium-high risk devices and require certification by a notified body; and
- Class III, which are considered high-risk devices and require certification by a notified body.

United States Class III and certain Class II medical device approvals and European Union Class III and certain Class IIa and IIb medical device approvals may require the successful completion of human clinical trials.

U.S. Regulatory Marketing Authorization Process

Products that are regulated as medical devices and that require review by the FDA are subject to either a premarket notification, also known as a 510(k), which must be submitted to the FDA for clearance, or a PMA application, which the FDA must approve prior to marketing in the United States. The FDA ultimately determines the appropriate regulatory path. For purposes herein, references to regulatory approval and marketing authorization may be used interchangeably.

We believe that the additional products we are currently pursuing for internal use will require a PMA approval prior to commercialization. However, we commercialized an initial product for external use that has been cleared through the 510(k) process. To obtain 510(k) marketing clearance for a medical device, an applicant must submit a premarket notification to the FDA demonstrating that the device is "substantially equivalent" to a predicate device or devices, which is typically a legally marketed Class II device in the United States. A device is substantially equivalent to a predicate device if it has the same intended use and (i) the same technological characteristics, or (ii) has different technological characteristics and the information submitted demonstrates that the device is as safe and effective as a legally marketed device and does not raise different questions of safety or effectiveness. In some cases, the submission must include data from human clinical studies. Marketing may commence when the FDA issues a clearance letter finding substantial equivalence. Depending upon a product's underlying technology and intended use, as well as on FDA processes and procedures, seeking and obtaining a 510(k) can be a lengthy process.

A PMA, which is required for most Class III medical devices, must be submitted to the FDA if a device cannot be cleared through another approval process or is not otherwise exempt from the FDA's premarket clearance requirements. The PMA approval process can be lengthy and expensive. A PMA must generally be supported by extensive data, including without limitation technical, preclinical, clinical trial, manufacturing and labeling data, to demonstrate to the FDA's satisfaction the safety and efficacy of the device for its intended use. Clinical trials for a Class III medical device typically require an application for an investigational device exemption ("**IDE**"), which would need to be approved in advance by the FDA for a specified number of patients and study sites. Clinical trials are subject to extensive monitoring, recordkeeping and reporting requirements, and must be conducted under the oversight of an institutional review board ("**IRB**") for the relevant clinical trial sites and comply with applicable FDA regulations, including those relating to good clinical practices ("**GCP**").

The PMA process is estimated to take from one to three years or longer, from the time the PMA application is submitted to the FDA until an approval is obtained. During the review period, the FDA will typically request additional information or clarification of the information previously provided. Also, experts from outside the FDA may be convened to review and evaluate the PMA and provide recommendations to the FDA as to the approvability of the device, although the FDA may or may not accept any such recommendations. In addition, the FDA will generally conduct a pre-approval inspection of the manufacturing facility or facilities involved with producing the device to ensure compliance with the cGMP regulations. Upon approval of a PMA, the FDA may require that certain conditions of approval, such as conducting a post-market approval clinical trial, be met.

Further, if post-approval modifications are made, including, for example, certain types of modifications to the device's indication for use, manufacturing process, labeling or design, then new PMAs or PMA supplements would be required. PMA supplements often require submission of the same type of information as a PMA, except that the supplement is typically limited to information needed to support the changes from the device covered by the original PMA and accordingly may not require as extensive clinical and other data.

We have not submitted to the FDA a PMA or commenced the required clinical trials for an internal use product. Even if we conduct successful preclinical and clinical studies and submit a PMA for an approval or premarket application for clearance, the FDA may not permit commercialization of our product candidate for the desired internal use indications, on a timely basis, or at all. Our inability to achieve regulatory approval for AC5 in the United States for an internal use product, a large market for hemostatic products, would materially adversely affect our ability to grow our business.

European Union Marketing Authorization (CE Mark) Process

A notified body is a private commercial entity designated by the national government of an European Union ("**EU**") member state as being competent to make independent judgments about whether a medical device complies with applicable regulatory requirements in the EU. Our notified body is The British Standards Institution ("**BSI**").

The EU has adopted numerous directives and standards regulating the design, manufacture, clinical trials, labeling, and adverse event reporting for medical devices, and it has further revised its rules and regulations with increasingly stringent requirements. Each EU member state has implemented legislation applying these directives and standards at a national level. Many countries outside of the EU have also voluntarily adopted laws and regulations that mirror those of the EU with respect to medical devices, potentially increasing the time and cost necessary to potentially achieve an approval in different jurisdictions.

Devices that comply with the requirements of the laws of the selected member state applying the applicable EU directive are entitled to bear a CE (*Conformité Européenne*) mark and can be distributed throughout the member states of the EU, as well as in other countries that have mutual recognition agreements with the EU or have adopted the EU's regulatory standards.

Under applicable European Medical Device Directives (MDD), a CE mark is a symbol placed on a product that declares that the product is compliant with the essential requirements of applicable EU health, safety and environmental protection legislation. In order to receive a CE mark for a product candidate, the company producing the product candidate must select a country in which to apply. Each country in the EU has one competent authority ("**CA**") that implements the national regulations by interpreting the EU directives. CAs also designate and regulate Notified Bodies. An assessment by a notified body in the selected country within the EU is required in order to commercially distribute the device. In addition, compliance with ISO 13485 issued by the International Organization for Standardization, among other standards, establishes the presumption of conformity with the essential requirements for CE mark. Certification to the ISO 13485 standard demonstrates the presence of a quality management system that can be used by a manufacturer for design and development, production, installation and servicing of medical devices and the design, development and provision of related services.

While there are many similarities between the processes required to obtain marketing authorization in the United States and Europe, there are several key differences between the jurisdictions, as well. Obtaining a CE mark is not equivalent to obtaining FDA clearance or approval. For instance, FDA requirements for products typically vary based on whether the submission is for a premarket notification (510(k)) or a premarket approval (PMA) whereas EU requirements for product submissions are primarily based on class. Furthermore, EU submissions must meet precise essential requirements, although the data demonstrating such compliance can vary by class of device. Additionally, a CE mark affixed to a product serves as a declaration by the responsible party that the product conforms to applicable provisions and that relevant conformity assessment procedures have been completed with respect to the product.

In 2017, the European Union regulatory bodies implemented a new Medical Device Regulation ("**MDR**"). The MDR changes several aspects of the existing regulatory framework, such as clinical data requirements, and introduces new ones, such as Unique Device Identification ("**UDI**"). We, and the Notified Bodies who will oversee compliance to the new MDR, face uncertainties in the upcoming years as the MDR is rolled out and enforced, creating risks in several areas, including the CE mark process, data transparency and application review timetables.

Post-Approval Regulation

After a medical device obtains approval from the applicable regulatory agency and is launched in the market, numerous post-approval regulatory requirements would apply. Many of those requirements are similar among the United States and EU member states and include:

- product listing and establishment registration;
- requirements that manufacturers, including third-party manufacturers, follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process;
- labeling and other advertising regulations, including prohibitions against the promotion of products for uncleared, unapproved or off-label use or indication;
- approval of product modifications that affect the safety or effectiveness of any of our devices that may achieve approval;
- post-approval restrictions or conditions, including post-approval study commitments;
- post-market surveillance regulations, which apply, when necessary, to protect the public health or to provide additional safety and effectiveness data for the device;
- the recall authority of the applicable government agency and regulations pertaining to voluntary recalls; and
- reporting requirements, including reports of incidents in which a product may have caused or contributed to a death or serious injury or in which a product malfunctioned, and notices of corrections or removals.

Failure by us, our third-party manufacturers or our other suppliers to comply with applicable regulatory requirements could result in enforcement action by various regulatory authorities, which may result in monetary fines, the imposition of operating restrictions, product recalls, criminal prosecution or other sanctions.

Regulation by Other Foreign Agencies

International sales of medical devices outside the EU may be subject to government regulations in each country in which the device is marketed and sold, which vary substantially from country to country. The time required to obtain approval by a non-EU foreign country may be longer or shorter than that required for FDA or CE mark clearance or approval, and the requirements may substantially differ.

Marketing Authorization (510k) for AC5 Advanced Wound System in the United States

On July 25, 2017, we announced that we had made a 510(k) submission to the FDA for AC5 Topical Gel. On December 18, 2017, we voluntarily withdrew the application after receiving questions from the FDA for which an adequately comprehensive response could not be provided within the FDA's congressionally-mandated 90-day review period. On October 1, 2018, we announced that we both completed the necessary steps required to file a new 510(k) submission to the FDA for AC5 Topical Gel and filed that 510(k) submission during the third calendar quarter. As previously disclosed, these steps included developing a required study protocol and submitting it to the FDA in a pre-submission letter in the first calendar quarter, completing the pre-submission process, initiating the study in the second calendar quarter of 2018 and completing the study. On December 17, 2018, we announced that the 510(k) premarket notification for AC5 Topical Gel had been reviewed and cleared by the FDA, allowing for the product to be marketed.

In line with plans to better harmonize our United States and European product supply chains by using an additional supplier and additional manufacturing processes in the production of AC5 Topical Gel, Arch filed documentation with the FDA seeking such clearance in the United States for these additions, each of which had been incorporated into the technical documentation for the European CE mark filing. On March 23, 2020, we announced that the 510(k) premarket notification for AC5 Topical Gel had been reviewed and cleared by the FDA, allowing for the product to be marketed in the United States with the aforementioned additions. AC5 Topical Gel was subsequently renamed to AC5 Advanced Wound System in the United States.

Marketing Authorization (CE mark) for AC5 Topical Hemostat in Europe

During November 2018 we submitted the required documents for AC5 Topical Hemostat to its notified body seeking a CE mark. During August 2019, we received and responded to customary written and verbal questions related to the technical file, and that BSI had provided and assessed during the review period were acceptable so far. In that announcement, we further expressed our belief that the delay by the regulatory authority in completing the CE mark technical file review appeared to be due to a backlog of work for EU notified bodies related to both Brexit and the implementation of the new EU Medical Devices Regulation.

During April 2020, we received the CE (*Conformité Européenne*) mark for AC5 Topical Hemostat, allowing for commercialization in Europe as a dressing and to control bleeding in external skin wounds in both outpatient and in-patient settings.

Commercialization

Our commercialization efforts are currently focused on Dermal Sciences. Our BioSurgery products for internal use will require additional preclinical and clinical testing before we seek marketing authorization to commercialize them.

Our Dermal Sciences products are AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and the indication for use, or purpose, for each product follows, respectively:

- Under the supervision of a health care professional, AC5 Advanced Wound System is a topical dressing used for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds.

- AC5 Topical Hemostat is intended for use locally as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound.

We have prioritized the launch of AC5 Advanced Wound System in the United States over that of AC5 Topical Hemostat in Europe, where we have not launched, for the foreseeable future to maximize operational efficiencies considering the COVID-19 pandemic.

We expect the Dermal Sciences product commercialization ramp to be initially gradual and then moderately accelerate as we identify and encourage product use by key opinion leaders and early adopters in developing market channels. We are actively concentrating our marketing and selling efforts on doctor's offices, other ambulatory settings, and government facilities, such as hospitals in the Veterans Health Administration ("**VA Hospitals**") and Medical Treatment Facilities. These settings tend to have many patients whose needs we believe can be addressed by AC5 Advanced Wound System because it is a synthetic self-assembling wound care product that provides clinicians with multi-modal support and utility across all phases of wound healing. Numerous published case studies and accolades highlight the efficacy and safety of AC5 in the treatment of challenging chronic and acute surgical wounds, including limb salvage and healing after other modalities have failed.

Securing reimbursement for AC5 Advanced Wound System in ambulatory settings, such as doctor's offices, is an important part of our commercial strategy. Consequently, we applied to the CMS for a dedicated HCPCS Level II billing code specific to AC5 Advanced Wound System on June 29, 2022, which if granted, would better enable providers to bill third party payors for AC5 that is used in doctors' offices. We believe that there is a growing trend toward the use of synthetic wound care products, including those that have been commonly referred to as synthetic skin substitutes. A dedicated HCPCS code is an important step toward, although not a guarantee of, coverage and reimbursement, and it would enhance our ability to work directly with payors as we expand access in outpatient settings and continue to advocate for clinically appropriate usage of our technology for patients. Our application was subsequently approved with a go-live date of April 1, 2023. We have launched a temporary reimbursement support program in line with CMS guidance to support commercial use and adoption of AC5 Advanced Wound System both before and after the go-live date of our unique product code (A2020).

To support commercialization in government facilities, AC5 Advanced Wound System has been added to the Federal Supply Schedule (FSS), General Services Administration (GSA) schedule and the Defense Logistics Agency's Medical Electronic Catalog Program (ECAT) and Distribution and Pricing Agreement (DAPA), enabling purchase by federal government agencies, including the Department of Veterans Affairs (VA), Indian Health Services (IHS), and Department of Defense (DOD) Medical Treatment Facilities effective December 15, 2021.

We envision hiring additional internal sales representatives to help commercialize the Dermal Sciences products.

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain sales and marketing activities, typically with assistance from our team. These third parties can include contract organizations, consultants, advisors, scientists, clinicians, and/or other collaborators.

While our core team oversees initial inventory distribution from the warehouse to the customer, our commercialization plans include entering into collaboration agreements with contract sales partners, including independent sales representatives and distributors, and potentially strategic partners. We anticipate that we will enter and periodically terminate certain agreements based on performance or other business criteria.

We are committed to continuous improvement processes. We collect feedback and data when feasible and appropriate to develop and commercialize products that serve patients and doctors; to develop marketing messages; to learn about product use; to evaluate product performance in different settings; to improve our products; to address reimbursement needs, and to support collaborations that we may have or may establish. Data has been and will continue to be collected by informal feedback, observational case reports and/or clinical trials.

We received the CE mark for AC5 Topical Hemostat in April 2020. We announced receipt of 510(k) premarket notification clearances for AC5 Advanced Wound System in December 2018, providing marketing authorization, and on March 23, 2020, clearing use of an additional supplier and additional manufacturing processes.

The COVID-19 Pandemic Impact on Commercialization

The COVID-19 pandemic environment introduced significant challenges related to product launch, marketing and sales, as clinicians and facilities became overburdened and increasingly focused on managing resources, the disease, and the virus spread. While the overall environment has improved, many negative effects linger. We have observed the following effects at different times, and anticipate that they will variously wax and wane over time:

- the volume of elective surgical procedures has been constrained periodically, with many institutions indefinitely suspending or eliminating such procedures at times;
- healthcare facilities often have been required to ration staff and resources, including ventilators, personal protective equipment ("**PPE**"), and operating rooms, thereby negatively impacting the focus on wound care;
- clinicians often have been required to divert their time and resources to urgent COVID-19 needs;
- clinicians often have been required to quarantine due to exposure to a COVID-19 positive individual or isolate because of contracting symptomatic or asymptomatic COVID-19 disease;
- some institutions have been periodically designated "COVID Hospitals";
- access to surgeons, potential strategic partners, and facilities outside of the United States has become curtailed;
- administrators who may be required to facilitate or approve new product intake are constrained by new and other pressing priorities; and
- both clinicians and patients often try to minimize possible COVID-19 exposure, resulting in reduced access to healthcare system and essential care treatments and services.

We believe that these challenges have also highlighted some potential opportunities for our new technology to address certain poorly met needs. For instance, wound interventions are too often considered to be elective procedures instead of being treated essentially or emergently as National Pressure Ulcer Advisory Panel guidelines and others recommend, resulting in a projected increased risk to limb and life while elective procedures are delayed and not prioritized. Furthermore, the implications of these delays are a growing backlog of chronic wounds awaiting care and a worsening of such wounds, leading to greater morbidity, such as infection, necrosis, and amputation, and potentially mortality.

While highlighted by the COVID-19 pandemic, we also believe that these challenges reveal an underlying problem in the healthcare system-clinicians and other providers are being asked to accomplish more in less time with fewer resources. These resources may include higher acuity settings, such as operating rooms; expensive wound care products that may not work as well as desired; nursing time to change wound dressings; and surgeon time for managing wounds during debridement; repeat patient visits over months and often years, and others. Our COVID-19- related discussions with surgeons, economic stakeholders and other decision-making personnel often include whether AC5 Advanced Wound System may enable them to accomplish more for their patients while deploying overall fewer resources and achieving desired outcomes.

Manufacturing

We work with contract manufacturing and related organizations, including those operating under current good manufacturing practices ("**cGMP**"), as is required by applicable regulatory agencies for production of product that can be used for preclinical and human testing as well as for commercial use. We also have engaged and continue to engage other third parties in the United States and abroad to advise on and perform certain manufacturing and related activities, typically with assistance from our team. These third parties include academic institutions, consultants, advisors, scientists, and/or other collaborators. The activities include development of our primary product candidates, as well as generation of appropriate analytical methods, scale-up, and other procedures for use by manufacturers and/or other members of our supply chain to produce or process our products at current and/or larger scale quantities for preclinical and clinical testing and ultimately, as required marketing authorizations are obtained, commercialization.

Our products are regulated as medical devices, and as such, many of our activities have focused on optimizing traditional parameters to target specifications, biocompatibility, physical appearance, stability, and handling characteristics, among other metrics, to achieve the desired product. We and our partners intend to continue to monitor manufacturing processes and formulation methods closely, as success or failure in establishing and maintaining appropriate specifications may directly impact our ability to conduct additional preclinical and clinical trials and/or deliver commercial product.

We believe that the manufacturing methods used for a product, including the type and source of ingredients and the burden of waste byproduct elimination, are important determinants of its opportunity for profitability. Industry participants are keenly aware of the downsides of products that rely on expensive biotechnology techniques and facilities for manufacture, onerous and expensive programs to eliminate complex materials, or ingredients that are sourced from the complicated process of human or other animal plasma separation, since those products typically are expensive, burdensome to produce, and at greater risk for failing regulatory oversight.

The manufacturing methods that we use and intend to use to produce our current products and potential future product candidates rely on detailed, complex and difficult to manage synthetic organic chemistry processes. Although use of those methods requires that we engage manufacturers that possess the expertise, skill and know-how involved with those methods, the required equipment to use those methods is widely available. Furthermore, improvements in relevant synthetic manufacturing techniques over the past two decades have reduced their complexity and cost, while increasing large-scale cGMP capacity. Moreover, our current products and currently planned product candidates will be synthesized from naturally occurring ingredients that are not sourced from humans or other animals but do exist in their natural state in humans. That type of ingredient may be more likely to be categorized as "generally recognized as safe", or "GRAS", by the FDA.

Industry and Competition

Arch is developing technology for Dermal Sciences and BioSurgery applications, including wound care, surgical procedures on and in the body, and endoscopic gastrointestinal procedures. We seek to provide a product set with broad utility in external and internal applications. Features of the technology highlight its potential utility in a range of settings, including traditional open procedures and the often more challenging minimally invasive surgeries.

Common features of our current and planned products, as described herein, are driven by the mechanism of action, which itself is derived from the underlying physicochemical properties or our self-assembling peptide technology and our product safety and performance specifications. Those features, which include, among others, that they possess barrier properties and can create an environment permissive to healing, can deliver a benefit in the treatment of external and internal wounds that are open, exposed, bleeding, leaking, and/or at risk for excessive inflammation or contamination.

Dermal Sciences

We have received marketing authorizations for AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe. Compared to most other advanced wound dressings on the market, ours can be used throughout all phases of wound healing (i.e., inflammatory, proliferative, and remodeling).

Wounds can vary widely in terms of degree of bleeding and oozing, chronicity, acuity, complications, anatomic location, biochemistry, micromilieu, bioburden and other factors that may inhibit an ideal response. Patients can also vary widely in terms of co-morbidities, compliance, setting of their care, ability to contribute to their own care, and other risk factors. And the approach by surgeons to clinical practice can vary widely in terms of debridement strategy, timing and/or use of advanced modalities, choice and use of consumables, follow-up, and dressing change frequency, and more. Our products are designed to self-assemble on the wound site in response to locally present stimuli (ions), despite these diverse situations, with the objective of providing greater utility to clinicians and enabling better outcomes for patients.

The incidence and prevalence of both acute surgical and chronic wounds is noteworthy. According to a 2020 report by Steiner et al for The Healthcare Cost and Utilization Project, approximately 17 million hospital visits (inpatient and ambulatory) in 2014 resulted in almost 22 million invasive therapeutic surgeries. While more acute surgical wounds occur per year versus chronic wounds, the nature of chronic wounds provides addition greater challenges due to the prolonged duration of the healing period, the frequency of interventions needed to help the wound heal, and the often-underlying medical problem that placed the patient at risk for the wound in the first place, which is itself a hindrance to the healing process.

Chronic wounds affect approximately 2% of the United States Population, accounting for an estimated 6-7 million people.

Diabetic foot ulcers develop in approximately 2 million Americans each year, according to The Health Innovation Program, University of Wisconsin, while the annual incidence across developed countries is estimated to be 2-4%, according to Woods et al in 2020. Pressure ulcers develop in over 2.5 million Americans each year, according to the United States Agency for Healthcare Research & Quality.

Venous leg ulcers, representing the most common chronic wounds, occur in approximately 2.2% of Americans over age 65 each year, according to Rice et al in 2014, which equates to roughly 1.2 million new wounds per year among just that population, while Qiu et al in 2021 provided an estimated prevalence of 2-4%. The Centers for Disease Control and Prevention estimates that approximately 56 million Americans are over age 65. Additional chronic wounds not accounted for above can include, among others, surgical wounds that become chronic wounds, typically in patients with co-morbidities.

The morbidity and mortality associated with wounds, and particularly chronic wounds, is problematic. A 2017 article by Järbrink et al noted that chronic wounds may not heal for several years or, in some cases, decades, during which time the patient may suffer from severe pain, emotional and physical distress, less mobility and greater social isolation, while the family may suffer from other stresses and challenges. Woods et al in 2020 stated that only 2/3 of diabetic foot ulcers heal within 12 months. Some wounds just do not heal, remaining stagnant or progressing to limb loss or worse. Järbrink et al noted in 2017 that ulcers precede 85% of all amputations.

The Health Innovation Program, Universality of Washington, cited that of patients with diabetic foot ulcers in the United States, more than 50% will die within five years and 5% will have an amputation (https://hip.wisc.edu/DiabeticFootUlcers). A common phrase in medicine, which we often cite, is, “Save a limb, save a life.” Even the amputations that are required to save a patient from a non-healing, progressing chronic wound are associated with additional significant morbidity and mortality. In an examination of mortality rates after amputations from a chronic wound, Meshkin et al performed a systematic literature review and found that of the sixty-one studies yielding approximately 36,000 patients who previously received a nontraumatic major lower extremity amputation, approximately 34% died by year one, 55% died by year two, and 64% died by year five. Stern et al in 2017 reported an even higher mortality rate one year after amputation of approximately 48%.

According to the US Market Report for Wound and Tissue Management, 2018 by iData Research, advanced wound dressings account for approximately $2 billion in annual revenues while the overall wound care market is projected to surpass $10 billion in the United States, yet this represents a relatively small percentage of the overall cost to care for wounds, including chronic wounds, such as venous leg ulcers, diabetic foot ulcers, and pressure ulcers.

As such, the total expenditure required to treat wounds is an important consideration in assessing market opportunity, product need, industry dynamics, and needs of insurers. Several wound related phenomenon influence the overall cost and challenge of wound care. For instance, many surgeons believe that a chronic wound is essentially a chronic infection, which raises costs and complicates treatment plans, and that healing requires aggressive debridement (surgical removal of damaged, dead, lacerated, devitalized, or contaminated tissue), which narrows the scope of which wound care products can be used at the time of the procedure as a useful tool to support healing.

According to a 2018 report by Nussbaum et al., data from calendar year 2014 estimated that Medicare alone spent between $28.1 to $96.8 billion for all wound care types, and that nearly 15% (8.2 million) of Medicare beneficiaries were diagnosed with at least one type of wound or wound-related infection. Furthermore, a 2017 report by Chan et al indicated that the mean one-year cost of care from the perspective of a health-care public payer was $44,200 for a diabetic foot ulcer, $15,400 for a pressure ulcer and $11,000 for a leg ulcer. Woods et al in 2020 estimated that the cost per admission among patients with diabetic foot ulcers was $8,145 if the wound was not infected and $11,290 if the wound was infected. Han et al noted in 2017 that lessening a hospital admission by just one day represents an enormous cost savings and is separately beneficial to the patient.

A common wound care topic, which has been further highlighted during the COVID-19 pandemic, is how to provide high quality care in lower acuity settings. It is less expensive, more convenient, and potentially better for the patient if a wound care procedure, such as debridement, can be safely performed in a doctor's office or wound clinic in lieu of a hospital operating room. For example, a report by Rogers et al in 2020 discussed changing sites of service to the lowest acuity setting in which care could be safely delivered. As such, we believe that wound care products should be designed to enable clinicians to "do more with less", such as debride in a clinic or office a wound that otherwise may have required an operating room visit.

While the wound care opportunity is large for safe, efficacious, and novel products, the competitive landscape is also crowded and challenging. For instance, while many of the commercially marketed advanced wound care dressings or other products, may provide utility in certain situations and possess some novel features, surgeons often describe an inability to differentiate one from the other. In addition, many advanced products are expensive when accounting for wound surface area coverage, are not user friendly, and/or may need to rely on the passage of several weeks of time for the wound bed to adequately be prepared before they can be used, which itself adds burden to their use.

We believe that the aforementioned elevated wound incidence and prevalence, consequential morbidity and mortality, prolonged healing times and exorbitant cost of overall care underscores the potential opportunity for the overall market and for our products. We believe that the addressable market opportunity for advanced wound care products in the US alone can exceed $20 billion if improvements enable the best products to increase penetration at the expense of less effective wound care products and categories, lessen expensive non-product-related treatment costs for insurers (e.g., skin grafts, dressing changes, etc.), and deliver improved outcomes more quickly and in lower acuity settings.

We believe that AC5 Advanced Wound System is sufficiently differentiated to replace certain competitive products, complement other products and procedures by potentially enabling the wound bed to be ready sooner, and enable more procedures to be done sooner and/or in settings where they could not be performed easily before.

Features and benefits of AC5 Advanced Wound System may include that it:

- is a self-assembling wound care matrix and may provide better outcomes across all phases of wound;
- conforms to irregularly shaped wound geometry;
- may be used in either lower acuity (e.g., clinics) or higher acuity (e.g., operating rooms) settings;
- can be used in conjunction with aggressive surgical debridement;
- can be used on a wound whether or not it is bleeding;
- is agnostic to the presence of anti-thrombotic therapy (aka, blood thinners);
- can be used on a chronic, stalled wound that has been previously unresponsive to or failed other treatment regimens;
- provides a protective barrier to mitigate contamination and modulating inflammation;
- donates moisture to the wound;
- can create wound microenvironment conducive to healing;
- aids in epithelial cell migration;
- creates an extracellular matrix-like structure to enable cell and tissue growth;
- is self-healing, in that it can dynamically self-repair around migrating cells;
- may reduce healing time and patient burden;
- is user-friendly, easy to prepare, and easy to apply;
- may be stored at ambient temperature; and
- may reduce treatment costs while improving outcomes in certain patients.

BioSurgery

We are developing BioSurgery products for internal use, including for hemostasis and sealant applications, and gastrointestinal endoscopic surgical procedures, and we believe that our technology will be useful in addressing the constant demand for better performance and safety in minimally invasive surgery ("**MIS**"), traditional surgery, Natural Orifice Translumenal Endoscopic Surgery, commonly referred to as "*NOTES'*, and other procedures.

While developing our products, we engaged commercial strategy and marketing consultants and communicated directly with care providers to understand the needs of potential customers and to assess product feature preferences.

Surgeons, operating room managers, sales representatives and hospital decision-makers identified several characteristics deemed desirable, including that a product is:

- reliable;
- able to protect the wounds in tissues and organs where used;
- laparoscopic friendly;
- easily handled and applied;
- able to promote a clear field of vision and not obstruct view;
- sufficiently flowable;
- non-sticky (to tissue or equipment);
- permits normal healing;
- agnostic to the presence of antithrombotic medications ("blood thinners") to whether the patient has bleeding abnormalities;
- non-toxic; and
- not sourced from human or other animal blood or tissue components.

We believe that long-term trends, which support a need for products to better support clinicians in surgical procedures, include:

- a persistent drive to migrate the site of surgical care from inpatient hospital operating room to progressively lower acuity same-day ambulatory settings due to cost and other potential negative impacts of unnecessary hospitalizations, such as infection risk or occupying scares resources that may be more usefully deployed elsewhere;

- increased use of anticoagulants and other anti-thrombotic agents (also known as blood thinners) due to co-morbidities, but which predispose patients to bleeding;

- the increasingly difficult nature of procedures expected to be performed by surgeons with the least invasive method feasible in the less expensive settings accessible; and

- the desire to lower procedure time to increase operating room through-put, increase shift volume, and lessen in-procedure time for patient's well-being;

We believe that a motivating factor for some of these trends may be the increased costs associated with procedures performed in hospital operating rooms, which have been estimated to cost between $2,000 and $10,000 per hour, according to MedMarket Diligence and others.

These costs likely drive the desire for increased operating room throughput and increased volume of procedures performed in outpatient settings. Both of those trends highlight the need for highly effective products that can decrease operating room time for inpatient procedures and help to increase the safety of performing more types of procedures in less expensive outpatient settings.

Since the early days of modern MIS in the 1990s, the percent of surgeries performed minimally invasively has increased significantly, such that it is now widespread and common. Laparoscopic surgery is among the most recognized types of MIS, although there are many additional types. Advantages of MIS tend to include less scarring, less post-operative pain, less need for pain medications, shorter recovery times, and faster discharge times. However, such procedures often present the surgeon with less margin for error and less capacity to deal with certain risks, such as excessive bleeding, without having to convert the surgery to a traditional open procedure.

A trend to make traditional minimally invasive surgery even less invasive is known NOTES. In NOTES procedures, an endoscope is passed through a natural orifice, such as the mouth, urethra, anus, or vagina, and then through an internal incision in the stomach, vagina, bladder or colon. NOTES advantages include those of MIS to a potentially even greater degree, as well as the lack of external incisions and external scars, improved visibility, and the possibility to avoid managing potential obstacles to surgery, such as extensive adhesions from prior procedures. However, compared to MIS, margin for error in NOTES is even less. NOTES may be performed by surgeons or endoscopists, yet the techniques can be challenging to learn and are in their early stages of development. Practitioners may seek additional tools, including BioSurgery products where relevant, to enable them to operate efficiently, effectively, and safely.

We consider these items while developing our BioSurgery products with the objective of meeting these needs.

We are developing products for hemostasis and sealant applications. Many of the hemostasis products currently available do not possess certain features and handling characteristics that are ideal for use in a laparoscopic setting. For instance, many available products are difficult to use in MIS or NOTES because they tend to be sticky, powdery, fabric-based or are otherwise difficult to insert into and control through the small gauge, yet long, catheters used during these procedures. We believe that the novel features and differentiating characteristics of our BioSurgery products will make them more suitable for such surgeries compared to many or most of the presently available alternatives.

According to a 2015 MedMarket Diligence, LLC report, the market for hemostatic agents and sealants achieved approximately $4.2 billion in worldwide sales in 2015 and was projected to reach $4.8 billion in 2017 and surpass $7.5 billion in 2022. While the majority of those sales are for hemostats, we believe that the projected growth rate for sealants in multiple applications, such as the gastrointestinal track, could become greater as additional products become available.

In spite of the large size of the market for these products, many available hemostatic agents and sealants possess a combination of limitations, including slow onset of action, general unreliability, user-unfriendliness, and risk for adverse effects, such as healing problems, adhesion formation, infection and other safety concerns. Many of the deficiencies of currently available hemostatic agents and sealants are comparable to those of their earlier-generation counterparts, as revolutionary advances in underlying technologies have been elusive.

Participants in the hemostatic and sealant market include large medical device and biopharmaceutical companies, as well as various smaller companies. Commercially available hemostatic agents can cost between $50 and $500 per procedure, with the higher value-added products generally priced at the upper end of that range. We believe, however, that approaches to many surgical problems have evolved and will continue to do so, such that what may recently appeared to be an interesting market may be less so in the future if the required tools also evolve. For instance, the endovascular approach to vascular reconstruction may lessen the need for hemostatic agents in certain procedures.

We are also developing products for gastrointestinal and NOTES procedures, endoscopic mucosal resections (“**EMR**”) and endoscopic submucosal dissections (“**ESD**”). Surgical endoscopists are removing more complicated tumors and lesions from the gastrointestinal tract via EMR and ESD, which are endoscopic techniques to remove early-stage cancer and precancerous growths from the lining of the digestive tract through long narrow equipment, which consist of ports, catheters, lights, monitors, and video cameras. This represents the least invasive interventional approach known.

The EMR/ESD market is immature and growing, we believe, because of an increasing elderly population and incidence of gastrointestinal malignancies. The opportunity is noteworthy in North America, Europe, and Asia, where a higher prevalence of certain gastrointestinal malignancies and lower screening rates leads to later discovery and removal of tumors than would be desired. We believe that overall costs of care associated with these procedures, when compared to that of more invasive alternatives, and potentially faster recovery times will encourage a growth trend. It should be noted that these procedures do require that the doctor possess additional non-routine skill and equipment thereby tempering potential adoption curves.

A particular need for which we are developing AC5-G is a product that provides both a durable and safe lift while being inherently hemostatic. The concept is to inject AC5-G beneath a polyp or tumor to be resected or dissected, thus creating separation between the lesion and the underlying healthy tissue.

Incomplete lesion removal, bleeding and perforation are known challenges and risks of EMR/ESD. The objective of a lift is to minimize the risk for perforation into the peritoneum, which can cause significant morbidity and mortality, and increase the probability of visualizing and removing the entire desired lesion. The lift should also be durable, potentially lasting at least two hours, such that the frequency of repeat injections and perforation risk is minimized. Normal and abnormal tissues can also bleed during these procedures, and it can be challenging and time consuming to stop. Surgeons have expressed a desire for an improved agent that can prophylactically or actively address such bleeding. Surgeons have further expressed interest in sealant properties in the event that a perforation occurs during the procedure.

Several companies have products that provide either a lift or are hemostatic. Based on early indicators, we believe that AC5-G provides properties for both lift and hemostasis. AC5-G was featured in a video presentation during the Emerging Technology Session of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) 2020 Annual Meeting, which took place from August 11-13, 2020.

Potential Disadvantages of our Current and Planned Products Compared to the Competition

Some potential disadvantages of our products compared to currently marketed products follow:

- The favorable handling characteristics of AC5 Devices result, in part, from their non-sticky and non-glue-like nature. However, if a surgeon or healthcare provider requires a product to adhere tissues together, or provide similar glue-like action, then AC5 Devices in their current form would not achieve that effect.

- While we project that our products will be sufficiently economical to manufacture at scale, they may not be able to compete from a price perspective with inexpensive products.

- We have generated less data in humans compared to many successful products in the Dermal Sciences or BioSurgery categories.

- While we believe that the flowable nature of our products before they assemble into a dense nanofiber network can provide a meaningful advantage, some surgeons may prefer a solid product in certain applications.

Other Governmental Regulations and Environmental Matters

We are or may become subject to various laws and regulations regarding laboratory practices and the use of animals in testing, as well as environmental laws and regulations governing, among other things, any use and disposal by us of hazardous or potentially hazardous substances in connection with our research. At this time, costs attributable to environmental compliance are not material. In each of these areas, applicable U.S. and foreign government agencies have broad regulatory and enforcement powers, including, among other things, the ability to levy fines and civil penalties, suspend or delay issuance of approvals, seize or recall products, and withdraw approvals, any one or more of which could have a material adverse effect on our business. Additionally, if we are able to successfully obtain approvals for, and commercialize our product candidates, then the Company and our products may become subject to various federal, state and local laws targeting fraud, abuse, privacy and security in the healthcare industry.

Intellectual Property

We are focused on the development of self-assembling compositions, particularly self-assembling peptide compositions, and methods of making and using such compositions primarily in healthcare applications. Suitable applications of these compositions include limiting or preventing the movement of bodily fluids and contaminants within or on the human body, preventing adhesions, treatment of leaky or damaged tight junctions, and reinforcement of weak or damaged vessels, such as aneurysms. Our strategy to date has been to develop an intellectual property portfolio in high-value jurisdictions that tend to uphold intellectual property rights and apply business judgment rules to determine which patent applications to pursue and, if granted, which patents to maintain. The information provided is subject to change if pending patent applications are abandoned, issued patents are allowed to lapse, or new applications are filed.

As of October 25, 2023, we either own or license from others a number of U.S. patents, U.S. patent applications, foreign patents and foreign patent applications.

Six patent portfolios assigned to Arch Biosurgery, Inc. include approximately 50 patents and pending applications in approximately 20 jurisdictions, including approximately 11 patents and pending applications in the US. These portfolios cover self-assembling peptides, formulations and methods of use thereof and self-assembling peptidomimetics and methods of use thereof, including approximately eight issued US patents (US 9,415,084; US 9,162,005; US 9,789,157; US 9,821,022; US 9,339,476; US 10,314,886; US 10,682,386, and 10,869,907) that expire between 2026 and 2034 (absent any potential patent term extension), as well as approximately 30 patents that have been either allowed, issued or granted in foreign jurisdictions.

We have also entered into a license agreement with Massachusetts Institute of Technology and Versitech Limited ("**MIT**") pursuant to which we have been granted exclusive rights under two portfolios of patents and non-exclusive rights under another three portfolios of patents.

The two portfolios exclusively licensed from MIT include approximately 30 patents and pending applications drawn to self-assembling peptides, formulations and methods of use thereof and self-assembling peptidomimetics and methods of use thereof in a total of nine jurisdictions. The portfolios include five issued US patents (US 9,511,113; US 9,084,837; US 10,137,166; US 9,327,010; and US 9,364,513) that expire between 2026 and 2027 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

The portfolios non-exclusively licensed from MIT include a number of US and foreign applications, including three issued US patents (US 7,846,891; US 7,713,923; and US 8,901,084) that expire between 2024 and 2026 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

Our license agreement with MIT imposes or imposed certain diligence, capital raising, and other obligations on us, including obligations to raise certain amounts of capital by specific dates. Additionally, we are responsible for all patent prosecution and maintenance fees under that agreement. Our breach of any material terms of our license agreement with MIT could permit the counterparty to terminate the agreement, which could result in our loss of some or all of our rights to use certain intellectual property that is material to our business and our lead product candidate. Our loss of any of the rights granted to us under our license agreement with MIT could materially harm our product development efforts and could cause our business to fail.

AC5, AC5-G, AC5-V, AC5-P, Crystal Clear Surgery, NanoDrape and NanoBioBarrier and associated logos are trademarks and/or registered trademarks of Arch Therapeutics, Inc. and of Arch Biosurgery, Inc.

Employees

As of October 25, 2023, we had ten employees, all of whom are full-time, and make extensive use of third-party contractors, consultants, and advisors to perform many of our present activities. We expect to increase the number of our employees as we increase our operations.

Properties

We do not own any real property. In April 2015, we moved our corporate offices to a property in Framingham, Massachusetts. In July 2017, we entered into a three-year operating lease commencing October 1, 2017 and ending on September 30, 2020 at our current location. During August 2020, we extended the lease through September 30, 2021 at our current location. During October 2021, we extended the lease through March 31, 2022 at our current location. Effective April 1, 2022, our lease is month to month at our current location.

Legal Proceedings

In the ordinary course of business, we may become a party to legal proceedings involving various matters. We are unaware of any such legal proceedings presently pending to which we or our subsidiary is a party or of which any of our property is the subject that management deems to be, individually or in the aggregate, material to our financial condition or results of operations.

Dr. Avtar Dhillon served as our Chairman of the Board from April 2013 through July 2018, and as an advisor to us from July 2018 until his termination on August 6, 2021. As previously disclosed, in August 2021, the U.S. Department of Justice (the "**DOJ**") filed a criminal complaint against Dr. Avtar Dhillon, alleging, among other things, his participation in a securities fraud scheme whereby he concealed his ownership of millions of shares of two microcap companies (including the Company) and then secretly directed the shares' sale, generating approximately $2.19 million in proceeds. On December 7, 2022, Dr. Avtar Dhillon pleaded guilty to one count of conspiracy to commit securities fraud, one count of securities fraud, and two counts of obstructing a proceeding of the SEC. Sentencing is scheduled for May 23, 2024. At the same time, the SEC charged Dr. Avtar Dhillon with violations of the antifraud and certain other provisions of federal securities laws in connection with the sales of securities of certain public companies, including his sale of shares of the Company. On October 20, 2022, the United States District Court for the Central District of California entered a final judgment as to Dr. Avtar Dhillon, in favor of the SEC, pursuant to which he is (1) prohibited from acting as an officer or director of any issuer that has a class of securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") or that is required to file reports pursuant to Section 15(d) of the Exchange Act and (2) permanently restrained and enjoined from violating, directly or indirectly, (i) Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder, (ii) Section 17(a) of the Securities Act, and (iii) Section 17(b) of the Securities Act. The Company has fully cooperated with the DOJ and the SEC and has not been implicated in or charged with any wrongdoing.

DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Set forth below is certain information regarding our current directors and executive officers:

Name	Position	Age	Director/Officer Since
Dr. Terrence W. Norchi	President, Chief Executive Officer and Chairman of the Board of Directors	58	April 2013
Michael S. Abrams	Chief Financial Officer	52	May 2021
Daniel M. Yrigoyen	Vice President of Sales	53	July 2021
Punit Dhillon	Director	42	July 2018
Laurence Hicks	Director	57	September 2021
Dr. Guy L. Fish	Director	63	December 2021

Dr. Terrence W. Norchi. Terrence W. Norchi, MD, our co-founder, serves as our President and Chief Executive Officer, and Chairman of the Board. Dr. Norchi also served as our Interim Chief Financial Officer through June 26, 2013. Dr. Norchi has served in similar positions since co-founding ABS, our predecessor company in 2006. Prior to ABS, Dr. Norchi was a portfolio manager of one of the world's largest healthcare mutual funds and a pharmaceutical analyst at Putnam Investments from April 2002 to September 2004. Prior to that, he served as the senior global biotech and international pharmaceutical equity analyst at Citigroup Asset Management, and as a sell-side analyst covering non-U.S. pharmaceutical equities at Sanford C. Bernstein in New York City. Dr. Norchi earned an M.B.A. from the Massachusetts Institute of Technology, Sloan School of Management in 1996. Dr. Norchi earned an M.D. degree in 1990 from Northeast Ohio Medical University and completed his internal medicine residency in 1994 at Baystate Medical Center, Tufts University School of Medicine, where he was selected to serve as the Chief Medical Resident. Dr. Norchi brings to our Board and management team invaluable experience and knowledge of our core technology and proposed product candidates as a result of his first-hand experience with the development of that technology, having ushered it from the research laboratory to its current stage of development. His investing experience as a former public company analyst and a portfolio manager provides further insights and value as the company advances toward commercialization. Dr. Norchi serves on the Board of Advisors of the Boston Museum of Science.

Michael S. Abrams. Mr. Abrams has served as the Chief Financial Officer of the Company since May 2021. Prior to joining the Company, Mr. Abrams was the turnaround Chief Financial Officer for RiseIT Solutions, Inc. from February 2019 to April 2021, where he helped return the business to profitability. Prior to RiseIT Solutions, from August 2009 to February 2019, Mr. Abrams served as the Chief Financial Officer and director of FitLife Brands, Inc., a publicly traded entity focused on the development of functional nutritional supplements that promote an active, healthy lifestyle. From August 2004 to December 2016, Mr. Abrams served as Partner and Managing Director of Burnham Hill Capital Group, a private privately held financial services holding company. Mr. Abrams graduated with an MBA with Honors from the Booth School of Business at the University of Chicago and received his BBA with Honors from the University of Massachusetts at Amherst as a William F. Field Alumni scholar, an award given annually to the top finance student in the class.

Daniel M. Yrigoyen. Mr. Yrigoyen has served as the Vice President of Sales of the Company since July 2021. Prior to joining the Company, Mr. Yrigoyen was Vice President, Sales & Channel Distribution for Medela, Inc. from April 2016 to July 2021. Prior to Medela, Mr. Yrigoyen served as General Manager for multiple business units at Hollister, Inc., where he was responsible for the expansion of the wound care product portfolio and led the effort to launch several new and innovative wound care products into the US market. Following these efforts, Mr. Yrigoyen joined the Hollister Global Marketing Organization, where he led similar expansion efforts within key markets of Hollister's international business. Mr. Yrigoyen was an employee at Hollister for over 20 years and brings significant healthcare and distribution experience to the Company. Yrigoyen graduated with an MBA from the Kellogg School of Management at Northwestern University.

Punit Dhillon. Mr. Dhillon joined our Board of Directors in July 2018. Mr. Dhillon was appointed CEO and Chair of Skye Bioscience, Inc. (OTCQB: SKYE) in August 2020 and brings over 20 years of global industry experience to Arch's Board. He is the co-founder and former President & CEO of OncoSec Medical Incorporated (NASDAQ: ONCS), a leading biopharmaceutical company developing cancer immunotherapies for the treatment of solid tumors, where he served as an executive until March 2018 and a director until February 2020. Prior to that, Mr. Dhillon served as the Vice President of Finance and Operations at Inovio Pharmaceuticals, Inc. (NASDAQ: INO), a DNA vaccine development company, from September 2003 until March 2011. Mr. Dhillon is also a director and Audit Committee Chair of Emerald Health Therapeutics, Inc. (CSE: EMH). Mr. Dhillon also co-founded and is the director of YELL Canada, a registered Canadian charity that partners with schools to support entrepreneurial learning. Mr. Dhillon has a Bachelor of Arts with honors in Political Science and a minor in Business Administration from Simon Fraser University. Mr. Dhillon's experience in the medical device and life sciences industry provides value to his role as a member of the Board.

Laurence Hicks. Mr. Hicks joined our Board of Directors in September 2021. He has been the chief executive officer of Healthcare Components Group, a global manufacturer of OEM and replacement parts used for the manufacture and repair of medical devices, since 2021. From 2016 until 2021, when it merged into Healthcare Components Group, Mr. Hicks was chief executive officer of 2506052 Ontario Inc., a holding company for American Optics, Endoscopy Replacement Parts and Micro Optics Europe, which sell components used in the manufacturing and repair of endoscopes worldwide. He has held medical device leadership roles at ACMI, Karl Storz Endoscopy and NeuroTherm. Mr. Hicks' experience in the medical device industry provides value to his role as a member of the Board.

Dr. Guy L. Fish. Dr. Fish joined our Board of Directors in December 2021. He is currently employed by the Greater Lawrence Family Health Centers, a nationally recognized Federally Qualified Health Center, where he has served as the Chief Executive Officer since 2021. Dr. Fish is also the President and Co-Founder of Ivy Consulting Partners, Inc., a boutique consultancy focused on healthcare, corporate and leadership development, and business strategy, a role he has held since 1999. Dr. Fish served as the Chief Executive Officer at Cellanyx LLC, a cancer diagnostic company, from 2019 to 2020. From 2002 to 2021, Dr. Fish served in various executive positions at Fletcher Spaght, Inc., a strategy management firm focused on health care innovator companies. From 2006 to 2019, Dr. Fish served as an investor and Senior Vice President at Fletcher Spaght Ventures. Dr. Fish has served as a member of the board of directors of Etiometry, Inc. since 2019, PhaseBio Pharmaceuticals, Inc. (NASDAQ:PHAS) from 2009 to 2018, and Metabolon, Inc. from 2010 to 2017. Dr. Fish holds an MBA degree from Yale University School of Management and a M.D. degree from Yale University School of Medicine. Dr. Fish holds a bachelor's degree in biochemistry from Harvard University. The Company believes that Dr. Fish is qualified to serve on the Board as a result of his extensive leadership experience in the medical field, as well as his record of accomplishment in business strategy and operations.

Board of Director Composition

Our Board currently consists of four members. We have no formal policy regarding board diversity. Our priority in selection of board members is identification of members who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business and understanding of the competitive landscape.

Term of Office of Directors

Our directors are appointed and serve until their successor has been duly elected and qualified, or until the earlier of their death, resignation or removal.

Involvement in Certain Legal Proceedings

No director, executive officer or control person of the Company has been involved in any legal proceeding listed in Item 401(f) of Regulation S-K in the past 10 years.

Director Independence

Our Board of Directors has determined that Mr. Punit Dhillon, Mr. Laurence Hicks and Dr. Guy Fish would qualify as "independent" as that term is defined by Nasdaq Listing Rule 5605(a)(2). On August 15, 2022, we have established separately designated audit, corporate governance and nominating, and compensation board committees. Mr. Dhillon, Mr. Hicks, and Dr. Fish all qualify as "independent" under Nasdaq Listing Rules applicable to all such board committees. Dr. Terrence W. Norchi would not qualify as "independent" under Nasdaq Listing Rules applicable to the Board of Directors generally or to separately designated board committees because he currently serves as our President and Chief Executive Officer.

Subject to some exceptions, Nasdaq Listing Rule 5605(a)(2) provides that an independent director is a person other than an executive officer or other employee of the Company or any other individual having a relationship which, in the opinion of our Board of Directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Under Nasdaq Listing Rule 5605(a)(2) and subject to certain exceptions, a director will not be deemed to be independent if (a) the director is, or at any time during the past three years was, an employee of ours; (b) the director or a member of the director's immediate family or a person living with such director (collectively, a "**Related Party**") has received more than $120,000 in compensation from us during any twelve-month period within the preceding three years, other than compensation for service as a director or as a non-executive employee (in the case of Related Party), benefits under a tax-qualified retirement plan or non-discretionary compensation; (c) a Related Party is, or in the past three years has been, an executive officer of ours; (d) the director or a Related Party is an executive officer, partner or controlling shareholder of a company that makes payments to, or receives payments from, us in an amount which, in any twelve-month period during our past three fiscal years, exceeds the greater of 5% of the recipient's consolidated gross revenues for that year or $200,000 (except for payments arising solely from investments in our securities or payments under non-discretionary charitable contribution matching programs); (e) the director or a Related Party is employed as an executive officer of another company where at any time during the preceding three years one of our executive officers served on the compensation committee of such company; and (f) the director or a Related Party is a current partner of our independent public accounting firm, or has worked for such firm in any capacity on our audit at any time during the past three years.

Committees of the Board of Directors

Our Board has established an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. Our Board may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our Board. Each of these committees operate under a charter that has been approved by our Board, which will be available on our website.

Audit Committee

On August 15, 2022, our Board of Directors established a separate standing audit committee within the meaning of Section 3(a)(58)(A) of the Exchange Act. The Audit Committee consists of Mr. Punit Dhillon, serving as the Chairman of the Audit Committee, Mr. Laurence Hicks, and Dr. Guy Fish. Our Board has determined that the three directors currently serving on our Audit Committee are independent within the meaning of the Nasdaq Marketplace Rules and Rule 10A-3 under the Exchange Act. Our Board of Directors has determined that Mr. Dhillon is an "audit committee financial expert" as defined by applicable Securities and Exchange Commission ("**SEC**") rules.

The Audit Committee oversees and monitors our financial reporting process and internal control system, reviews and evaluates the audit performed by our registered independent public accountants and reports to our Board any substantive issues found during the audit. The Audit Committee is directly responsible for the appointment, compensation and oversight of the work of our registered independent public accountants. The Audit Committee reviews and approves all transactions with affiliated parties.

Compensation Committee

Our Compensation Committee consists of Dr. Fish, Mr. Hicks and Mr. Dhillon, with Mr. Hicks serving as the Chairman of the Compensation Committee. Our Board has determined that the three directors currently serving on our Compensation Committee are independent under the listing standards, are "non-employee directors" as defined in rule 16b-3 promulgated under the Exchange Act and are "outside directors" as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended.

The Compensation Committee provides advice and makes recommendations to the Board in the areas of employee salaries, benefit programs and director compensation. The Compensation Committee also reviews and approves corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other officers and makes recommendations in that regard to the Board as a whole.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Dr. Fish, Mr. Hicks and Mr. Dhillon, with Dr. Fish serving as the Chairman of the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee nominates individuals to be elected to the Board by our stockholders. The Nominating and Corporate Governance Committee considers recommendations from stockholders if submitted in a timely manner in accordance with the procedures set forth in our bylaws and will apply the same criteria to all persons being considered. All members of the Nominating and Corporate Governance Committee are independent directors as defined under the Nasdaq listing standards.

Board Leadership Structure and Role in Risk Oversight

Currently, Dr. Norchi serves as the Company's Chief Executive Officer and Chairman of the Board. Periodically, our Board will assess the roles of Chairman and Chief Executive Officer and the Board leadership structure to ensure the interests of the Company and our stockholders are best served. Our Board believes the current combination of the two roles is satisfactory at present. Dr. Norchi, as our Chief Executive Officer and Chairman, has extensive knowledge of all aspects of the Company and its business. We have no policy requiring the combination or separation of leadership roles and our governing documents do not mandate a particular structure. This has allowed, and will continue to allow, our Board the flexibility to establish the most appropriate structure for the Company at any given time.

While management is responsible for assessing and managing risks for the Company, our Board is responsible for overseeing management's efforts to assess and manage risk. This oversight is conducted primarily by our full Board, which has responsibility for general oversight of risks. Our Board satisfies this responsibility through regular reports directly from officers responsible for oversight of particular risks within the Company. Our Board believes that full and open communication between management and the Board is essential for effective risk management and oversight.

Code of Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, principal executive officer, principal financial officer, principal accounting officer and all of our other officers and employees and can be found on our website, http://www.archtherapeutics.com on our "Corporate Governance" webpage, which can be accessed from the "Investors" tab of our website. We will also provide a copy of our code of business conduct and ethics to any person without charge upon his or her request. Any such request should be directed to our Chief Financial Officer at 235 Walnut Street, Suite 6, Framingham, Massachusetts 01702. We intend to make all required disclosures concerning any amendments to or waivers from our code of business conduct and ethics on our website.

Liability and Indemnification of Directors and Officers

The NRS empower us to indemnify our directors and officers against expenses relating to certain actions, suits or proceedings as provided for therein. In order for such indemnification to be available, the applicable director or officer must not have acted in a manner that constituted a breach of his or her fiduciary duties and involved intentional misconduct, fraud or a knowing violation of law, or must have acted in good faith and reasonably believed that his or her conduct was in, or not opposed to, our best interests. In the event of a criminal action, the applicable director or officer must not have had reasonable cause to believe his or her conduct was unlawful.

We have not entered into separate indemnification agreements with our directors and officers. Our amended and restated bylaws provide that we shall indemnify any director or officer to the fullest extent authorized by the laws of the State of Nevada. Our amended and restated bylaws further provide that we shall pay the expenses incurred by an officer or director (acting in his capacity as such) in defending any action, suit or proceeding in advance of the final disposition of such action, suit or proceeding, subject to the delivery to us by or on behalf of such director or officer of an undertaking to repay the amount of such expenses if it shall ultimately be determined that he or she is not entitled to be indemnified by us as authorized in our bylaws or otherwise.

The NRS further provide that a corporation may purchase and maintain insurance or make other financial arrangements on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise for any liability asserted against him and liability and expenses incurred by him in his capacity as a director, officer, employee or agent, or arising out of his status as such, whether or not the corporation has the authority to indemnify him against such liability and expenses. We have secured a directors' and officers' liability insurance policy. We expect that we will continue to maintain such a policy.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXECUTIVE COMPENSATION

The following table summarizes all compensation recorded by us in each of the fiscal years ended September 30, 2023, and September 30, 2022 for (i) our principal executive officer; (ii) our two next most highly compensated executive officers whose total compensation exceeded $100,000 during our last completed fiscal year; and (iii) certain of our other executive officers, whose compensation is voluntarily provided.

Summary Compensation Table

Name	Fiscal Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)(1)	All other Compensation ($)	Total ($)
Dr. Terrence W. Norchi,	2023	450,500	-	-	40,500	-	491,000
President and Chief Executive Officer	2022	450,500	-	-	-	-	450,500
Michael S. Abrams	2023	325,000	-	-	29,160	-	354,160
Chief Financial Officer	2022	325,000	-	-	-	-	325,000
Daniel Yrigoyen	2023	325,000	-	-	16,200	-	341,200
VP of Sales	2022	316,667	-	-	9,075	-	325,742

(1) Represents the aggregate grant date fair values of awards granted during the fiscal year ended September 30, 2023 and 2022 under ASC Topic 718, which is calculated as of the grant date using a Black-Scholes option-pricing model. Accordingly, the dollar amounts listed do not necessarily reflect the dollar amount of compensation that may be realized by our executive officers. For information on the valuation assumptions with respect to option grants made during the fiscal year ended September 30, 2022 refer to Note 14 "**Stock-Based Compensation**" in our consolidated financial statements in this prospectus.

Employment Agreements with Named Executive Officers

Terrence W. Norchi

On June 25, 2013, we entered into an executive employment agreement with Dr. Terrence W. Norchi, our President and Chief Executive Officer and a member of our Board, which became effective as of June 26, 2013. Dr. Norchi's employment agreement continues until terminated by Dr. Norchi, or us and provided for an initial annual base salary of $275,000, and eligibility to receive an annual cash bonus in an amount up to 30% of Dr. Norchi's then-current annual base salary. In addition, Dr. Norchi's employment agreement provides that his annual base salary will be reviewed from time to time in accordance with the established procedures of the Company for adjusting salaries for similarly situated employees. Annual bonuses are awarded at the sole discretion of our Board. If Dr. Norchi's employment is terminated by us (unless such termination is "For Cause" (as defined in his employment agreement)), or by Dr. Norchi for "Good Reason" (as defined in his employment agreement), then Dr. Norchi, upon signing a release in favor of the Company, will be entitled to severance in an amount equal to 12 months of Dr. Norchi's then-current annual base salary, payable in the form of salary continuation, plus, if Dr. Norchi elects and subject to certain other conditions, payment of Dr. Norchi's premiums to continue his group health coverage under COBRA until the earlier of (i) 12 months following the date of such termination; or (ii) the date Dr. Norchi becomes covered under another employer's health plan. In addition, Dr. Norchi's employment agreement provides that, in the event of a change of control of the Company, termination by Dr. Norchi for Good Reason, termination by the Company for any reason other than For Cause, or termination as a result of Dr. Norchi's death, all unvested shares under outstanding equity grants to Dr. Norchi, if any, shall automatically accelerate and become fully vested. On March 13, 2014, Dr. Norchi's employment agreement was amended to increase his annual base salary to $325,000, retroactively effective as of February 1, 2014, and increase his cash bonus eligibility from 30% of his annual base salary to 35% of his annual base salary. In connection with the Board's annual review of Dr. Norchi's base salary, Dr. Norchi's annual base salary was increased to $425,000 effective July 1, 2017. In connection with the Board's annual review of Dr. Norchi's base salary, Dr. Norchi's annual base salary was increased to $450,500 effective August 1, 2019.

Dr. Norchi's employment agreement provides the following definitions of "For Cause" and "Good Reason": (a) "For Cause" is (i) the commission by the executive of a crime involving dishonesty, breach of trust, or physical harm to any person, (ii) executive's engagement by the executive in conduct that is in bad faith and materially injurious to the Company, (iii) commission by the executive of a material breach of the employment agreement which is not cured within 20 days after the executive receives written notice of such breach, (iv) willful refusal by the executive to implement or follow a lawful policy or directive of the Company, which breach is not cured by the executive within 20 days after receiving written notice from the Company, (v) or executive's engagement in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally (other than any such failure resulting from Executive's incapacity due to physical or mental illness); and (b) "Good Reason" is, without the executive's written consent, (1) a material reduction in executive's annual base salary, except for reductions that are comparable to reductions generally applicable to similarly situated executives of the Company, (2) the relocation of executive to a facility or location that is more than 50 miles from his primary place of employment and such relocation results in an increase in executive's one-way driving distance by more than 50 miles, or (3) a material and adverse change in executive's authority, duties, or responsibilities with the Company or a material and adverse change in executive's reporting relationship within the Company.

In connection with our entry into the executive employment agreement with Dr. Norchi, effective on June 26, 2013, Dr. Norchi's former employment agreement with ABS was terminated pursuant to a termination agreement and release between Dr. Norchi and ABS.

Michael S. Abrams

On March 31, 2021, we entered into an executive employment agreement with Mr. Abrams, our Chief Financial Officer and Treasurer. The agreement continues until terminated by us or by Mr. Abrams. Pursuant to the terms of the agreement, Mr. Abrams is entitled to an initial annual base salary of $325,000 and is eligible to receive an annual cash bonus in an amount of up to 30% of Mr. Abrams' then-current annual base salary. Annual bonuses are awarded at the sole discretion of our Board of Directors. In addition, Mr. Abrams' employment agreement provides that his annual base salary will be reviewed by the Board (or any committee thereof), with such input as it may request from the Company's Chief Executive Officer, from time to time but at least on an annual basis, in accordance with the established procedures of the Company for adjusting salaries for similarly situated employees. If Mr. Abrams' employment is terminated by us at any time after 30 days after the start date (unless such termination is "For Cause" (as defined in his employment agreement)), or by Mr. Abrams for "Good Reason" (as defined in his employment agreement), then Mr. Abrams, upon signing a release in favor of the Company, would be entitled to severance in an amount equal to six months of Mr. Abrams' then-current annual base salary, payable in the form of salary continuation, plus, if Mr. Abrams elects and subject to certain other conditions, payment of Mr. Abrams' premiums to continue his group health coverage under COBRA until the earlier of (i) 12 months following the date of such termination; or (ii) the date Mr. Abrams becomes covered under another employer's health plan. In addition, Mr. Abrams' employment agreement provides that, in the event of a change of control of the Company or his employment is terminated by the Company for any reason other than For Cause, all unvested shares under outstanding equity grants to Mr. Abrams, if any, shall automatically accelerate and become fully vested.

The agreement provides the following definitions of "For Cause" and "Good Reason": (a) "For Cause" is (i) Mr. Abrams commits a crime involving dishonesty, breach of trust, or physical harm to any person; (ii) Mr. Abrams willfully engages in conduct that is in bad faith and materially injurious to the Company, including without limitation misappropriation of trade secrets, fraud or embezzlement; (iii) Mr. Abrams commits a material breach of this Agreement or the Proprietary Information Agreement, which breach is not cured within twenty calendar days after written notice to Executive from the Company (to the extent curable); (iv) Mr. Abrams willfully refuses to implement or follow a lawful policy or directive of the Company, which breach is not cured within twenty calendar days after written notice to Executive from the Company; or (v) Mr. Abrams engages in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally. The Company may terminate Mr. Abrams' employment For Cause at any time, without any advance notice. The Company shall pay Mr. Abrams all compensation to which Mr. Abrams is entitled up through the date of termination, subject to any other rights or remedies of the Company under law, and thereafter all obligations of the Company under this Agreement shall cease.

Daniel M. Yrigoyen

On July 12, 2021, we entered into an executive employment agreement with Mr. Yrigoyen, our Vice President of Sales. The agreement continues until terminated by us or by Mr. Yrigoyen. Pursuant to the terms of the agreement, Mr. Yrigoyen is entitled to an initial annual base salary of $225,000 and is eligible to receive regular commission payments of up to $8,333.33 per month, depending on the achievement of established objectives; *provided, however*, that for the first nine (9) months of employment, Mr. Yrigoyen shall be entitled to receive the full commission of $8,333.33 per month regardless of whether the applicable performance objectives are met; this provision was subsequently extended indefinitely pending review from time to time in connection with the Company's ongoing commercialization effort.

In addition, Mr. Yrigoyen's employment agreement provides that his annual base salary will be reviewed by the Board (or any committee thereof), with such input as it may request from the Company's Chief Executive Officer, from time to time but at least on an annual basis, in accordance with the established procedures of the Company for adjusting salaries for similarly situated employees. If Mr. Yrigoyen's employment is terminated by us at any time after 30 days after the start date (unless such termination is "For Cause" (as defined in his employment agreement)), or by Mr. Yrigoyen for "Good Reason" (as defined in his employment agreement), then Mr. Yrigoyen, upon signing a release in favor of the Company, would be entitled to severance in an amount equal to six months of Mr. Yrigoyen's then-current annual base salary, payable in the form of salary continuation, plus, if Mr. Yrigoyen elects and subject to certain other conditions, payment of Mr. Yrigoyen's premiums to continue his group health coverage under COBRA until the earlier of (i) 12 months following the date of such termination; or (ii) the date Mr. Yrigoyen becomes covered under another employer's health plan. In addition, Mr. Yrigoyen's employment agreement provides that, in the event of a change of control of the Company or his employment is terminated by the Company for any reason other than For Cause, all unvested shares under outstanding equity grants to Mr. Yrigoyen, if any, shall automatically accelerate and become fully vested.

The agreement provides the following definitions of "For Cause" and "Good Reason": (a) "For Cause" is (i) Mr. Yrigoyen commits a crime involving dishonesty, breach of trust, or physical harm to any person; (ii) Mr. Yrigoyen willfully engages in conduct that is in bad faith and materially injurious to the Company, including without limitation misappropriation of trade secrets, fraud or embezzlement; (iii) Mr. Yrigoyen commits a material breach of this Agreement or the Proprietary Information Agreement, which breach is not cured within twenty calendar days after written notice to Executive from the Company (to the extent curable); (iv) Mr. Yrigoyen willfully refuses to implement or follow a lawful policy or directive of the Company, which breach is not cured within twenty calendar days after written notice to Mr. Yrigoyen from the Company; or (v) Mr. Yrigoyen engages in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally. The Company may terminate Mr. Yrigoyen's employment For Cause at any time, without any advance notice. The Company shall pay Mr. Yrigoyen all compensation to which Mr. Yrigoyen is entitled up through the date of termination, subject to any other rights or remedies of the Company under law, and thereafter all obligations of the Company under this Agreement shall cease.

Outstanding Equity Awards At Fiscal Year-End

The following table summarizes the aggregate number of option and stock awards held by our named executive officers at September 30, 2023:

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)
Dr. Terrence W. Norchi	312	- (1)	560.00	03/23/2024		
	250	- (2)	304.00	01/21/2025		
	221	- (3)	448.00	08/17/2025		
	781	- (4)	624.00	05/02/2026		
	406	- (5)	1,040.00	02/02/2027		
	225	- (6)	680.00	07/18/2028		
	625	- (7)	366.72	12/19/2029		
	625	- (8)	164.48	09/26/2031		
	417	208 (9)	164.48	09/26/2031		
	217	564 (10)	64.16	11/9/2032		
Michael S. Abrams	260	52 (11)	212.64	05/02/2031		
	145	72 (12)	164.48	09/26/2031		
	156	406 (13)	64.16	11/9/2032		
Daniel M. Yrigoyen	67	26 (14)	144.00	06/29/2031		
	83	41 (15)	164.48	09/26/2031	93 (16)	19,500
	41	52 (17)	96.8	05/23/2032		
	86	225 (18)	64.16	11/9/2032		

(1) Represents an option to purchase 312 shares of Common Stock with a grant date of March 23, 2014. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, 25% of the shares shall vest 12 months following the date of grant and 1/24th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing April 23, 2015.

(2) Represents an option to purchase 250 shares of Common Stock with a grant date of January 22, 2015. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, 25% of the shares shall vest 12 months following the date of grant and 1/24th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing February 22, 2016.

(3) Represents an option to purchase 221 shares of Common Stock with a grant date of August 18, 2015. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, and 1/36th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing September 18, 2015.

(4) Represents an option to purchase 781 shares of Common Stock granted on May 3, 2016. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vesting immediately, the remaining unvested Shares subject to the Option shall vest on each of the next thirty-six (36) monthly anniversaries of the date of grant.

(5) Represents an option to purchase 406 shares of Common Stock granted on February 3, 2017. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vesting immediately, the remaining unvested Shares subject to the Option shall vest on each of the next thirty-six (36) monthly anniversaries of the date of grant.

(6) Represents an option to purchase 225 shares of Common Stock with a grant date of July 19, 2018. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, and 1/36th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing August 19, 2018.

(7) Represents an option to purchase 625 shares of Common Stock with a grant date of December 20, 2019. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, and 1/36th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing January 20, 2019.

(8) Represents an option to purchase 625 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with 33% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(9) Represents an option to purchase 625 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(10) Represents an option to purchase 781 shares of Common Stock with a grant date of November 10, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(11) Represents an option to purchase 312 shares of Common Stock with a grant date of May 3, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with 30% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(12) Represents an option to purchase 218 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(13) Represents an option to purchase 562 shares of Common Stock with a grant date of November 10, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(14) Represents an option to purchase 93 shares of Common Stock with a grant date of July 30,2021. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(15) Represents an option to purchase 125 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(16) Represents an option to purchase 93 shares of Common Stock with a grant date of July 30, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(17) Represents an option to purchase 93 shares of Common Stock with a grant date of May 24, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(18) Represents an option to purchase 312 shares of Common Stock with a grant date of November 10, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant

Compensation of Directors

On March 23, 2014, our Board adopted a director compensation policy for non-employee directors. That policy provides that effective the first calendar quarter of 2014, the person serving as the Chairman of our Board receives an aggregate annual cash fee of $190,000 for that chairperson role, and all other non-employee directors receive an annual cash fee of $50,000.

The following table summarizes all compensation paid to our non-employee directors during the fiscal year ended September 30, 2023:

Director Compensation Table

	Fees Earned or Paid In Cash ($)	Stock Awards ($)	Option Awards ($)	All other Compensation ($)	Total ($)
Punit Dhillon (1)	12,500	-	8,100	-	20,600
Laurence Hicks (2)	-	-	8,100	-	8,100
Guy L. Fish (3)	-	-	8,100	-	8,100

(1)Mr. Dhillon was appointed as a member of the Board on July 19, 2018. The aggregate number of shares of Common Stock underlying option awards outstanding as of September 30, 2023 held by Mr. Dhillon was 781.

(2)Mr. Hicks was appointed as a member of the Board on September 27, 2021. The aggregate number of shares of Common Stock underlying option awards outstanding as of September 30, 2023 held by Mr. Hicks was 312.

(3)Dr. Fish was appointed as a member of the Board on December 31, 2021. The aggregate number of shares of Common Stock underlying option awards outstanding as of September 30, 2023 held by Dr. Fish was 312.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Related Party Transactions

During fiscal years 2023 and 2022, other than with respect to matters relating to the Company's compensation arrangements with its executive officers, there were no transactions between the Company or any of its subsidiaries and any "Related Person" (as that term is defined in Item 404 of Regulation S-K) that would be required to be reported pursuant to Item 404 of Regulation S-K other than the following:

On June 22, 2020, the Company entered into a Series J Warrant Issuance Agreement (the "**Keyes Sulat Agreement**") with the Keyes Sulat Revocable Trust (the "**Trust**"), also a holder of outstanding Series D Warrants, resulting in approximately $82,000 of proceeds as a result of the full exercise of the Trust's Series D Warrants. Under the terms of the Keyes Sulat Agreement, in exchange for fully exercising the Trust's remaining Series D Warrants for 284 shares of Common Stock on June 22, 2020, the Trust was issued Series J Warrants to purchase 213 shares of Common Stock at an exercise price of $400.00 over a 1 year term. James R. Sulat, a former member of the Board, is a co-trustee of the Trust, of which members of Mr. Sulat's immediate family are beneficiaries. Mr. Sulat disclosed his interest in the Trust to the Board prior to its approval of the transaction and abstained from voting on the transaction. As of October 25, 2023, no Series J Warrants remain outstanding.

On July 6, 2022 a Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the First Closing. The investment made in the First Closing made by the Board member and executive officers totaled $80,000.

On August 30, 2023 a Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the Bridge Offering. The investment made in the Bridge Offering made by the Board member and executive officers totaled approximately $7,500.

Review, Approval or Ratification of Transactions with Related Persons

Due to the small size of our Company, at this time we have determined to rely on our full Board to review related party transactions and identify and prevent conflicts of interest. Our Board reviews a transaction in light of the affiliations of the director, officer, employee or stockholder and the affiliations of such person's immediate family. Transactions are presented to our Board for approval before they are entered into or, if that is not possible, for ratification after the transaction has occurred. If our Board finds that a conflict of interest exists, then it will determine the appropriate remedial action, if any. Our Board approves or ratifies a transaction if it determines that the transaction is consistent with the best interests of the Company and its stockholders. The procedures described above have been approved by resolutions adopted by our Board.

Subject to some exceptions, Nasdaq Listing Rule 5605(a)(2) provides that an independent director is a person other than an executive officer or other employee of the Company or any other individual having a relationship which, in the opinion of our Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Under Nasdaq Listing Rule 5605(a)(2) and subject to certain exceptions, a director will not be deemed to be independent if (a) the director is, or at any time during the past three years was, an employee of ours; (b) the director or a member of the director's immediate family or a person living with such director (collectively, a "**Related Party**") has received more than $120,000 in compensation from us during any twelve-month period within the preceding three years, other than compensation for service as a director or as a non-executive employee (in the case of Related Party), benefits under a tax-qualified retirement plan or non-discretionary compensation; (c) a Related Party is, or in the past three years has been, an executive officer of ours; (d) the director or a Related Party is an executive officer, partner or controlling shareholder of a company that makes payments to, or receives payments from, us in an amount which, in any twelve-month period during our past three fiscal years, exceeds the greater of 5% of the recipient's consolidated gross revenues for that year or $200,000 (except for payments arising solely from investments in our securities or payments under non-discretionary charitable contribution matching programs); (e) the director or a Related Party is employed as an executive officer of another company where at any time during the preceding three years one of our executive officers served on the compensation committee of such company; and (f) the director or a Related Party is a current partner of our independent public accounting firm, or has worked for such firm in any capacity on our audit at any time during the past three years.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the beneficial ownership of our Common Stock by (i) each person who, to our knowledge, beneficially owns more than 5% of our Common Stock; (ii) each of our directors and named executive officers; and (iii) all of our directors and executive officers as a group. Unless otherwise indicated in the footnotes to the following table, the address of each person named in the table is: c/o Arch Therapeutics, Inc., 235 Walnut St., Suite #6, Framingham, Massachusetts 01702. The information set forth in the table below is based on 586,195 shares of our Common Stock outstanding on October 25, 2023. Shares of our Common Stock subject to options, warrants, or other rights currently exercisable or exercisable within 60 days of October 25, 2023 are deemed to be beneficially owned and outstanding for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not deemed outstanding for computing the percentage of any other person.

The number of shares beneficially owned after the offering assumes (i) the sale of 1,030,303 shares of Common Stock included in the Units in this offering at an assumed public offering price of $4.125 per Unit (assuming no sale of Pre-Funded Units); (ii) the expected issuance immediately prior to the pricing of this offering of 1,716,780 PIPE Pre-Funded Warrants in the Uplist PIPE, (iii) the expected issuance at the closing of this offering of 2,528,812 True-Up Shares and True-Up Pre-Funded Warrants to purchase an aggregate of 5,695,529 shares of Common Stock, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit; (iv) the expected issuance at the closing of this offering of an aggregate of 783,564 shares of Common Stock upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, assuming no issuance of any 2022 Note Conversion Pre-Funded Warrants, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in this offering of $4.00 per share; (v) no exercise of the Investor Warrants, PIPE Investor Warrants, PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants, Bridge Pre-Funded Warrants, Uplist Conversion Warrants or Exchange Investor Warrants; and (vi) the issuance of 6,615 shares of Common Stock as a result of the conversion of the Series 2 Notes, at the closing of this offering. The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and this offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341. The percentage of shares beneficially owned after the offering is based on an assumed 4,935,489 shares of Common Stock to be outstanding, based on the assumptions set forth in this paragraph.

The following table is presented after taking into account the applicable ownership limitation to which certain holders of our securities are subject to. In general, the ownership limitation prevents holders from exercising the warrant to the extent such exercise would result in the holder owning more shares than a certain ownership percentage, which is initially set below 5%, and such ownership limitation may be waived at the holder's discretion, provided that such waiver will not become effective until the 61st day after delivery of such waiver notice.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned (1)	Number of Shares Beneficially Owned after the Offering**	Percentage of Shares Beneficially Owned after the Offering
5%+ Stockholders:				
Oasis Capital, LLC (2)	37,500	6.40%	481,947	9.90%
Bigger Capital Fund, LP & District 2 Capital Fund LP (3)	37,500	6.40%	463,842	9.53%
Walleye Opportunities Master Fund Ltd (4)	37,500	6.40%	282,587	5.81%
Cavalry Fund I LP (5)	37,500	6.40%	355,091	7.30%
Brandt & Mona Wilson (6)	37,500	6.40%	282,587	5.81%
Ana and Michael Parker (7)	37,500	6.40%	474,889	9.76%
Andrew Stahl (8)	37,500	6.40%	282,587	5.81%
Sixth Borough Capital Fund, LP (9)	37,500	6.40%	460,128	9.46%
Named Executive Officers and Directors:				
Terrence Norchi (10)	14,149	2.39%	103,662	2.10%
Punit Dhillon (11)	733	*	733	*%
Laurence Hicks (12)	2,737	*	137,006	2.75%
Michael Abrams (13)	2,899	*	137,168	2.75%
Daniel Yrigoyen (14)	399	*	399	*%
Guy Fish (15)	251	*	251	*%
Named Officers and Directors as a Group	21,170	3.56%	379,219	7.32%

* Less than 1%.
**Excluding any shares and/or Investor Warrants issued in connection with the over-allotment option, if any.

Shares of our Common Stock subject to options, warrants, or other rights currently exercisable or convertible or exercisable or convertible within 60 days of October 25, 2023, are deemed to be beneficially owned and outstanding for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not deemed outstanding for computing the percentage of any other person.

(1) Except as otherwise indicated, we believe that each of the beneficial owners of the Common Stock listed previously, based on information furnished by such owners, has sole investment and voting power with respect to the shares listed as beneficially owned by such owner, subject to community property laws where applicable. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities.

(2) Represents 37,500 shares of Common Stock owned by Oasis Capital, LLC. Excludes (a) 16,412 shares of Common Stock issuable upon conversion of the First Notes (the "**First Conversion Shares**"); (b) 15,091 First Warrants; (c) 3,419 shares of Common Stock issuable upon conversion of the Second Notes (the "**Second Conversion Shares**"); (d) 6,288 Second Warrants; (e) 9,611 shares of Common Stock issuable upon conversion of the Third Notes (the **Third Conversion Shares**"); (f) 17,675 Third Warrants; (g) 125,656 Bridge Pre-Funded Warrants; and (h) 319,096 Common Warrants with unsatisfied exercise restrictions, all of which are subject to conversion or exercise restrictions that prohibit conversion or exercise until such time as the holder would not beneficially own, after such conversion or exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Oasis Capital, LLC has not waived such limitation.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Oasis Capital, LLC, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 1,912,778 shares of Common Stock after the offering, which would represent 14.60% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(3) Represents 37,500 shares of Common Stock owned by, and split evenly between, Bigger Capital Fund, LP and District 2 Capital Fund LP with a common control person. Excludes (a) 16,412 First Conversion Shares; (b) 15,091 First Warrants; (c) 3,419 Second Conversion Shares; (d) 6,288 Second Warrants; (e) 123,682 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (f) 319,082 Common Warrants with unsatisfied exercise restrictions held in the aggregate by Bigger Capital Fund, LP and District 2 Capital Fund LP, all of which are subject to conversion or exercise restrictions that prohibit conversion or exercise until such time as the holder would not beneficially own, after such conversion or exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, neither Bigger Capital Fund, LP, nor District 2 Capital Fund LP has waived such limitation.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Bigger Capital Fund, LP and District 2 Capital Fund LP, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 1,822,923 shares of Common Stock after the offering, which would represent 13.91% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(4) Represents 37,500 shares of Common Stock owned by Walleye Opportunities Master Fund Ltd. Excludes (a) 122,035 Bridge PreFunded Warrants with unsatisfied exercise restrictions; and (b) 319,070 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Walleye Opportunities Master Fund Ltd has not waived such limitation.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Walleye Opportunities Master Fund Ltd., exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 1,639,984 shares of Common Stock after the offering, which would represent 12.51% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(5) Represents 37,500 shares of Common Stock owned by Cavalry Fund I LP. Excludes (a) 6,565 First Conversion Shares; (b) 6,036 First Warrants; (c) 1,368 Second Conversion Shares; (d) 2,515 Second Warrants; (e) 123,133 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (f) 319,078 Common Warrants with unsatisfied exercise restrictions, all of which are subject to conversion or exercise restrictions that prohibit conversion or exercise until such time as the holder would not beneficially own, after such conversion or exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Cavalry Fund I LP has not waived such limitation.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Cavalry Fund I LP, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 1,713,610 shares of Common Stock after the offering, which would represent 13.08% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(6) Represents 37,500 shares of Common Stock owned individually by Brandt and Mona Wilson. Excludes (a) 122,035 Bridge PreFunded Warrants with unsatisfied exercise restrictions; and (b) 319,070 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, neither Brandt Wilson nor Mona Wilson had waived such limitation.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Brandt and Mona Wilson, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 1,639,984 shares of Common Stock after the offering, which would represent 12.51% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(7) Represents (i) 29,431 shares of Common Stock owned individually by Ana Parker, Michael A. Parker's spouse; (ii) 4,757 shares of Common Stock owned individually by Mr. Parker; (iii) 3,125 shares of Common Stock owned through Tungsten, of which Mr. Parker is the sole manager and (iv) 188 shares of restricted stock granted to Mr. Parker on September 27, 2021. Excludes (a) 10,308 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; (b) 68,686 Common Warrants with unsatisfied exercise restrictions; (c) 12,945 First Conversion Shares; (d) 6,036 First Warrant Shares; (e) any of the 2,143 shares of Common Stock that may be acquired upon the exercise of Series I Warrants (which expire October 18, 2024); or (f) any of the 2,930 shares that may be acquired upon the exercise of Series K Warrants (which expire on August 11, 2026), since such warrants cannot be exercised until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case such waiver will become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, neither Ms. Parker nor Mr. Parker have waived such limitation. The number of shares beneficially owned after the offering assumes, for illustrative purposes only, the above referenced stockholder's participation in the Uplist Transaction in an amount equal to 4.3 times their participation in the Bridge Offering; however, no assurance can be given that the stockholder will participate in such amount or at all, and no commitment has been made on their part.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Ana and Michael Parker, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 485,198 shares of Common Stock after the offering, which would represent 3.70% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(8) Represents 37,500 shares of Common Stock owned individually by Andrew Stahl. Excludes (a) 122,035 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (b) 319,070 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Mr. Stahl had not waived such limitation

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Andrew Stahl, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 1,639,984 shares of Common Stock after the offering, which would represent 12.51% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(9) Represents 37,500 shares of Common Stock owned by Sixth Borough Capital Fund, LP. Excludes (a) 7,984 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (b) 90,967 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Sixth Borough Capital Fund, LP has not waived such limitation. The number of shares beneficially owned after the offering assumes, for illustrative purposes only, the above referenced stockholder's participation in the Uplist Transaction in an amount equal to 4.3 times their participation in the Bridge Offering; however, no assurance can be given that the stockholder will participate in such amount or at all, and no commitment has been made on their part.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants, including Sixth Borough Capital Fund, LP, exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 468,112 shares of Common Stock after the offering, which would represent 3.57% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(10) Represents (a) 6,250 shares of Common Stock held by Twelve Pins Partners, LLC, with respect to which Dr. Norchi is the sole member and holds sole voting and investment control; (b) 887 shares issued to Dr. Norchi upon the closing of the Merger in exchange for the cancellation of shares of Common Stock and convertible notes of ABS owned by him immediately prior to the closing of the Merger; (c) 706 shares of restricted stock granted to Dr. Norchi on May 3, 2016; (d) 406 shares of restricted stock granted to Dr. Norchi on February 3, 2017; (e) 225 shares of restricted stock granted to Dr. Norchi on July 19, 2018; (f) 328 First Conversion Shares; (g) 302 First Warrants; and (h) 45 First Inducement Shares; (i) 4,141 shares subject to options exercisable within 60 days after October 25, 2023; and (j) 858 shares of common stock purchased. Excludes 1,716 Common Warrants with unsatisfied exercise restrictions. Dr. Norchi disclaims beneficial ownership of the securities held by Twelve Pins Partners, LLC except to the extent of his pecuniary interest therein. The number of shares beneficially owned after the offering assumes, for illustrative purposes only, the above referenced stockholder's participation in the Uplist Transaction in an amount equal to 4.3 times their participation in the Bridge Offering; however, no assurance can be given that the stockholder will participate in such amount or at all, and no commitment has been made on their part.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 103,662 shares of Common Stock after the offering, which would represent less than 1% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(11) Represents 734 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023.

(12) Represents 421 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023. Includes (i) 17 shares of Common Stock, (ii) 492 First Conversion Shares, (iii) 453 First Warrant Shares, (iv) 68 First Inducement Shares; and (v) 1,287 shares of common stock held by Drake Partners Equity LLC, in which Mr. Hicks has an ownership interest. Excludes 2,573 Common Warrants with unsatisfied exercise restrictions held by Drake Partners Equity LLC, in which Mr. Hicks has an ownership interest. The number of shares beneficially owned after the offering assumes, for illustrative purposes only, the above referenced stockholder's participation in the Uplist Transaction in an amount equal to 4.3 times their participation in the Bridge Offering; however, no assurance can be given that the stockholder will participate in such amount or at all, and no commitment has been made on their part.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 137,006 shares of Common Stock after the offering, which would represent 1.05% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(13) Represents (i) 492 First Conversion Shares; (ii) 453 First Warrant Shares; (iii) 68 First Inducement Shares; (iv) 1,287 shares of common stock purchased, and (v) 600 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023. Excludes 2,573 Common Warrants with unsatisfied exercise restrictions. The number of shares beneficially owned after the offering assumes, for illustrative purposes only, the above referenced stockholder's participation in the Uplist Transaction in an amount equal to 4.3 times their participation in the Bridge Offering; however, no assurance can be given that the stockholder will participate in such amount or at all, and no commitment has been made on their part.

For illustrative purposes only, if all holders of PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and Bridge Pre-Funded Warrants exercised such warrants (which have exercise prices of $0.001 or $0.008) in full, disregarding for purposes of this illustration any ownership limitations therein, then such shareholder would beneficially own 137,168 shares of Common Stock after the offering, which would represent 1.05% of the 133,104,669 shares of Common Stock that would be outstanding in such scenario.

(14) Represents 94 shares of restricted stock granted to Mr. Yrigoyen on July 30, 2021, and 306 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023.

(15) Represents 252 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023.

SHARES ELIGIBLE FOR FUTURE SALE

Overview

As of the date of this offering our Common Stock has only been traded on the OTCQB Market. In connection with this offering, we have applied to list our Common Stock on the Nasdaq Capital Market. No assurance can be given that our application will be approved. Sales of substantial amounts of our Common Stock in the public market, including shares issued upon the exercise of outstanding options or warrants, or the perception that such sales could occur, could adversely affect prevailing market prices of our Common Stock. Upon completion of this offering, we will have an aggregate of 4,935,489 shares of Common Stock issued and outstanding, assuming (i) the sale of 1,030,303 shares of Common Stock included in the Units in this offering at an assumed public offering price of $4.125 per Unit (assuming no sale of Pre-Funded Units); (ii) the expected issuance immediately prior to the pricing of this offering of 1,716,780 PIPE Pre-Funded Warrants in the Uplist PIPE, (iii) the expected issuance at the closing of this offering of 2,528,812 True-Up Shares and True-Up Pre-Funded Warrants to purchase an aggregate of 5,695,529 shares of Common Stock, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit; (iv) the expected issuance at the closing of this offering of an aggregate of 783,564 shares of Common Stock upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, assuming no issuance of any 2022 Note Conversion Pre-Funded Warrants, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in this offering of $4.00 per share; (v) no exercise of the Investor Warrants, PIPE Investor Warrants, PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants, Bridge Pre-Funded Warrants, Uplist Conversion Warrants or Exchange Investor Warrants; and (vi) the issuance of 6,615 shares of Common Stock as a result of the conversion of the Series 2 Notes, at the closing of this offering. The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and this offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341. Assuming the exercise in full of the Bridge Pre-Funded Warrants, PIPE Pre-Funded Warrants, True-Up Pre-Funded Warrants and 2022 Note Conversion Pre-Funded Warrants, if any, (which have exercise prices of $0.001 or $0.008 and therefore function as common stock equivalents) there would be 13,104,669 shares (13,259,214 shares if the underwriters exercise their option to purchase additional shares in full) of Common Stock outstanding after this offering. All of the shares of Common Stock sold in this offering, including the shares of Common Stock issuable upon exercise of the Investor Warrants included in the Units and Pre-Funded Units sold in this offering, will be freely transferable without restriction or further registration under the Securities Act by persons other than by our affiliates. In addition, for each Bridge Investor that purchases Units or Pre-Funded Units in this offering (or securities in the Uplist PIPE) with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, their Bridge Shares and the shares underlying their Bridge Warrants will not be subject to the Bridge Lock-Up (defined below), and their Bridge Shares (but not their Common Warrants, which are being cancelled and exchange for Exchange Investor Warrants, the shares underlying which are not included in the Resale Prospectus) would be freely transferable without restriction or further registration due to their inclusion in the Resale Prospectus. Further, all of the other securities registered under the Resale Prospectus will be freely transferable without restriction upon the effectiveness of the registration statement of which this prospectus forms a part. Those securities are comprised of an aggregate of (i) 1,987,693 shares of Common Stock and (ii) 32,449,546 shares of common stock underlying warrants (such amounts assuming all of the Common Warrants are exchanged into the Exchange Investor Warrants at the closing of this offering and no issuance of 2022 Note Conversion Pre-Funded Warrants or True-Up Shares).

In addition, pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in this offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Lock-Up Agreements

We, our directors and executive officers have agreed, subject to limited exceptions, for a period of six months after the closing of this offering, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exchangeable for our Common Stock either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of Dawson James Securities, Inc. ("**Dawson**"). Dawson may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Bridge Lock-Up

Pursuant to the Bridge SPA, the Bridge Investors agreed (the "**Bridge Lock-Up**") not to sell or otherwise transfer any of the Bridge Shares or Bridge Warrant Shares prior to the one-year anniversary of the Bridge Closing Date. In the event that a Bridge Investor purchases securities in connection with an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which this offering is intended to be, and/or in the Uplist PIPE, with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, the one-year lock-up period will no longer apply to the Bridge Shares and Bridge Warrants. The PIPE Investors have agreed to purchase approximately $7.1 million in the Uplist PIPE, and other Bridge Investors may purchase securities in this offering at a level that will result in the early termination of the lock-up period specified in the Lock-Up Agreements. Investors in this offering should not assume that any of the Bridge Investors will be subject to a lock-up after the completion of this offering.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares upon expiration of the lock-up agreements described above, without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described below, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our Common Stock then outstanding, which will equal an assumed approximately 48,605 shares immediately after this offering; or
- if and when our Common Stock is listed on the Nasdaq Capital Market or Alternate Exchange, the average weekly trading volume of our Common Stock on such market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

DESCRIPTION OF SECURITIES

Authorized Capital Stock

Pursuant to our amended and restated articles of incorporation, as amended, as of September 21, 2023, our authorized capital stock consists of 350,000,000 shares of Common Stock. The following description summarizes the material terms of our capital stock. Because it is only a summary, it may not contain all the information that is important to you. In connection with this offering, we intend to effect a reverse stock split of our Common Stock at a ratio of 1-for-8 prior to the pricing of this offering.

Preferred Stock

We are authorized to issue up to 5,000,000 shares of preferred stock, par value $0.001 per share, from time to time in one or more series. As of the date of this prospectus, there are no shares of our preferred stock outstanding.

The shares of preferred stock may be issued in series, and each such series shall have such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights, and qualifications, limitations or restrictions thereof, as shall be stated and expressed in the certificate of designation relating to such series, as approved by the board of directors and filed with the Nevada Secretary of State. Pursuant to our articles of incorporation, our Board of Directors is expressly vested with the authority, without further action by the stockholders, to determine and fix in the resolution or resolutions providing for the issuances of preferred stock the voting powers, designations, preferences and rights, and the qualifications, limitations or restrictions thereof, of each such series to the full extent now or hereafter permitted by the laws of the State of Nevada.

Prior to the issuance of any series of preferred stock, we will further amend our articles of incorporation, as amended, by way of a certificate of designation designating such series and its terms. We will file a copy of the certificate of designation that contains the terms of each such series of preferred stock with the Nevada Secretary of State and the SEC each time we issue a new series of preferred stock. Each certificate of designation will establish the number of shares included in a designated series and fix the designation, powers, privileges, preferences and rights of the shares of each series as well as any applicable qualifications, limitations or restrictions, including, as applicable:

- the designation, stated value and liquidation preference of the series;
- the number of shares authorized within the series;
- the offering price;
- the dividend rate or rates (or method of calculation), the date or dates from which dividends shall accrue, and whether such dividends shall be cumulative or noncumulative and, if cumulative, the dates from which dividends shall commence to cumulate;
- any redemption or sinking fund provisions;
- the amount that shares of the series shall be entitled to receive in the event of our liquidation, dissolution or winding-up;
- the terms and conditions, if any, on which shares of the series shall be convertible or exchangeable for shares of our stock of any other class or classes, or other series of the same class;
- the voting rights, if any, of shares of the series; the status as to reissuance or sale of shares of the series redeemed, purchased or otherwise reacquired, or surrendered to us on conversion or exchange;
- the conditions and restrictions, if any, on the payment of dividends or on the making of other distributions on, or the purchase, redemption or other acquisition by us or any subsidiary, of the common stock or of any other class of our shares ranking junior to the shares of the series as to dividends or upon liquidation;
- the conditions and restrictions, if any, on the creation of indebtedness by us or by any subsidiary, or on the issuance of any additional stock ranking on a parity with or prior to the shares of the series as to dividends or upon liquidation; and
- any additional dividend, liquidation, redemption, sinking or retirement fund and other rights, preferences, privileges, limitations and restrictions of the series.

The issuance of any preferred stock could adversely affect the rights of the holders of common stock and, therefore, reduce the value of the common stock. The ability of our Board of Directors to issue preferred stock could discourage, delay or prevent a takeover or other corporate action.

Common Stock Issued and Outstanding; Common Stock Registered Hereby

As of October 25, 2023, there were issued and outstanding 586,195 shares of Common Stock. Of our authorized and unissued shares of Common Stock, we are registering under the registration statement of which this prospectus forms a part 1,030,303 shares of Common Stock to be issued as part of the Units (or upon exercise of the Pre-Funded Warrants to be issued as part of the Pre-Funded Units, in lieu thereof).

The holders of our Common Stock, par value $0.001 per share, are entitled to one vote per share on all matters submitted to a vote of our stockholders, including the election of directors. Our articles of incorporation do not provide for cumulative voting in the election of directors, and our amended and restated bylaws provide that directors are elected by a plurality vote of the votes cast and entitled to vote on the election of directors at any meeting for the election of directors at which a quorum is present. Matters other than the election of directors to be voted on by stockholders are generally approved if, at a duly convened stockholder meeting, the number of votes cast in favor of the action exceeds the number of votes cast in opposition to the action, unless a different vote for the action is required by applicable law, our articles of incorporation or our amended and restated bylaws. Applicable Nevada law requires any amendment to our articles of incorporation to be approved by stockholders holding shares entitling them to exercise at least a majority of the voting power of the Company. The holders of our Common Stock will be entitled to cash dividends as may be declared, if any, by our Board from funds available. Upon liquidation, dissolution or winding up of our Company, the holders of our Common Stock will be entitled to receive pro rata all assets available for distribution to the holders. All rights of our holders of Common Stock described in this paragraph could be subject to any preferential voting, liquidation or other rights of any series of preferred stock that we may authorize and issue in the future. Our amended and restated articles of incorporation do not currently authorize us to issue any class of preferred stock. Our Common Stock is presently traded on the QB tier of the OTC Marketplace under the trading symbol “ARTH”. We have applied to list our Common Stock on the Nasdaq Capital Market under the symbol “ARTH.” No assurance can be given that our application will be approved. If our Common Stock is not approved for listing on the Nasdaq Capital Market or an Alternate Exchange, we will not complete this offering.

Units to be Issued in this Offering

Each of the Units we are offering (subject to adjustment) consists of one share of Common Stock and one Investor Warrant to purchase one share of our Common Stock. Each Unit will be sold at a purchase price of $ per Unit. Units will not be issued or certificated. The shares of Common Stock and the Investor Warrants comprising the Units are immediately separable and will be issued separately and uncertificated.

Pre-Funded Units to be Issued in this Offering

We are also offering to each purchaser whose purchase of Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding Common Stock immediately following the consummation of this offering, if the purchaser so chooses, Pre-Funded Units (each Pre-Funded Unit consisting of one Pre-Funded Warrant to purchase one share of Common Stock and one Investor Warrant to purchase one share of Common Stock) in lieu of Units that would otherwise result in the purchaser’s beneficial ownership exceeding 4.99% of our outstanding Common Stock (or at the election of the purchaser, 9.99%). The purchase price of each Pre-Funded Unit will equal the price per Unit being sold to the public in this offering minus $0.001.

Pre-Funded Warrants to be Issued in this Offering

The following summary of certain terms and provisions of the Pre-Funded Warrants offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of the form of Pre-Funded Warrant, which will be filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of Pre-Funded Warrant.

Pre-Funded Warrants provide any purchaser in this offering with the ability to purchase Pre-Funded Units (each Pre-Funded Unit consisting of one Pre-Funded Warrant to purchase one share of Common Stock and one Investor Warrant to purchase one share of Common Stock) in lieu of Units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding Common Stock (or, at the election of the purchaser, 9.99%). This is accomplished through purchasing Pre-Funded Warrants at a price equal to the purchase price for Units, less $0.001, which $0.001 is the exercise price for the Pre-Funded Warrants. Each Pre-Funded Warrant is exercisable into one share of Common Stock as offered hereunder. Thus, the purchaser is paying essentially the purchase price for a Unit at closing of the offering but is not deemed to beneficially own the shares of Common Stock included in the Units until the purchaser exercises the Pre-Funded Warrant. Once purchased, the purchase price of the Pre-Funded Warrants is not refundable. While the Pre-Funded Warrants permit waiver of provisions by us and the holder of the Pre-Funded Warrants, this would not affect the pre-funding as that is the purchase price of the instrument which is paid at the time of closing and becomes part of our proceeds received from this offering. In addition, the Pre-Funded Warrants are perpetual and do not have an expiration date.

Duration and Exercise Price

Each Pre-Funded Warrant will have an outstanding exercise price per share equal to $0.001. The Pre-Funded Warrants will be immediately exercisable and may be exercised at any time until the Pre-Funded Warrants are exercised in full. The exercise price and number of shares of Common Stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting Common Stock and the exercise price. The Pre-Funded Warrants will be issued separately from the accompanying Investor Warrants included in the Pre-Funded Units, and may be transferred separately immediately thereafter.

Exercisability

The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of Common Stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Pre-Funded Warrant to the extent that the holder would own more than 4.99% of the outstanding Common Stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding Common Stock after exercising the holder's Pre-Funded Warrants up to 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. Purchasers of Pre-Funded Units in this offering may also elect prior to the issuance of the Pre-Funded Warrants to have the initial exercise limitation set at 9.99% of our outstanding Common Stock.

Cashless Exercise

In lieu of making the cash payment otherwise contemplated to be made to us upon exercise in payment of the aggregate exercise price, the holder may elect instead to exercise its Pre-Funded Warrants on a cashless basis and receive upon such exercise (either in whole or in part) the net number of shares of Common Stock determined according to a formula set forth in the Pre-Funded Warrant.

Fundamental Transactions

If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the Pre-Funded Warrants with the same effect as if such successor entity had been named in the Pre-Funded Warrant itself. If holders of our Common Stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the Pre-Funded Warrant following such fundamental transaction.

Transferability

Subject to applicable laws, a Pre-Funded Warrant may be transferred at the option of the holder upon surrender of the Pre-Funded Warrant to us together with the appropriate instruments of transfer.

Fractional Shares

No fractional shares of Common Stock will be issued upon the exercise of the Pre-Funded Warrants. Rather, the number of shares of Common Stock to be issued will be rounded up to the nearest whole number.

Trading Market

There is no established trading market for the Pre-Funded Warrants on any securities exchange or nationally recognized trading system, and we do not expect an active trading market to develop. We do not intend to list the Pre-Funded Warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Pre-Funded Warrants will be extremely limited.

Right as a Shareholder

Except as otherwise provided in the Pre-Funded Warrants or by virtue of the holder's ownership of shares of Common Stock, such holder of Pre-Funded Warrants does not have the rights or privileges of a holder of Common Stock, including any voting rights, until such holder exercises such holder's Pre-Funded Warrants.

Investor Warrants to be Issued in this Offering

The following summary of certain terms and provisions of the Investor Warrants offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of the form of Investor Warrant, which will be filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of Investor Warrant.

The Investor Warrants issued in this offering entitle the registered holders to purchase Common Stock at an assumed exercise price equal to $4.00 per share (which equals the minimum bid price per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A)), subject to adjustment as discussed below, immediately following the issuance of such Investor Warrants and terminating at 5:00 p.m., New York City time, five years after the date of issuance.

The exercise price and number of shares of Common Stock issuable upon exercise of the Investor Warrants may be adjusted in certain circumstances, including in the event of a stock dividend or recapitalization, reorganization, merger or consolidation. However, the Investor Warrants will not be adjusted for issuances of shares of Common Stock at prices below its exercise price.

Exercisability. The Investor Warrants are exercisable immediately upon issuance and at any time up to the date that is five years from the date of issuance. The Investor Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of Common Stock purchased upon such exercise. Each Investor Warrant entitles the holder thereof to purchase one share of our Common Stock. Investor Warrants are not exercisable for a fraction of a share and may only be exercised into whole numbers of shares. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price and round down to the nearest whole share. Unless otherwise specified in the Investor Warrant, the holder will not have the right to exercise the Investor Warrants, in whole or in part, if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or 9.99% at the holder's election) of the number of our shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage is determined in accordance with the terms of the Investor Warrant. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon at least 61 days' prior notice from the holder to us.

Exercise Price. The exercise price per share of Common Stock purchasable upon exercise of the Investor Warrants is $, and is subject to adjustments for stock splits, reclassifications, subdivisions, and other similar transactions.

Listing; Transferability. We have applied for listing of the Investor Warrants on the Nasdaq Capital Market under the symbol " ARTHW ." No assurance can be given that our listing application will be approved. Subject to applicable laws, the Investor Warrants may be transferred at the option of the holders upon surrender of the Investor Warrants to us, together with the appropriate instruments of transfer.

Fundamental Transactions. If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the Investor Warrants with the same effect as if such successor entity had been named in the Investor Warrant itself. If holders of our Common Stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the Investor Warrant following such fundamental transaction. In the event of a Fundamental Transaction (as defined in each Investor Warrant) approved by our Board of Directors, the holders of the Investor Warrants have the right to require us or a successor entity to redeem the Investor Warrants for cash in the amount of the Black Scholes Value (as defined in each Investor Warrant) of the unexercised portion of the Investor Warrants as of the date of the consummation of the Fundamental Transaction. In the event of a Fundamental Transaction which is not approved by our Board of Directors, the holders of the Investor Warrants have the right to require us or a successor entity to redeem the Investor Warrants for the consideration paid in the Fundamental Transaction in the amount of the Black Scholes Value of the unexercised portion of the Investor Warrants as of the date of the consummation of the Fundamental Transaction.

Rights as a Shareholder. Except by virtue of such holder's ownership of our Common Stock, the holder of Investor Warrants does not have rights or privileges of a shareholder, including any voting rights, until the holder exercises such Investor Warrant.

Transfer Agent

The transfer agent for our Common Stock is Empire Stock Transfer. Our transfer agent's address is 1859 Whitney Mesa Drive, Henderson, Nevada 89014.

Anti-Takeover Provisions of Nevada State Law

Some features of the Nevada Revised Statutes ("**NRS**"), which are further described below, may have the effect of deterring third parties from making takeover bids for control of us or may be used to hinder or delay a takeover bid. This would decrease the chance that our stockholders would realize a premium over market price for their shares of Common Stock as a result of a takeover bid.

Acquisition of Controlling Interest

The NRS contain provisions governing acquisition of a controlling interest of a Nevada corporation. These provisions provide generally that any person or entity that acquires a certain percentage of the outstanding voting shares of a Nevada corporation may be denied voting rights with respect to the acquired shares, unless certain criteria are satisfied. Our amended and restated bylaws provide that these provisions will not apply to us or to any existing or future stockholder or stockholders.

Combination with Interested Stockholder

The NRS contain provisions governing combinations of a Nevada corporation that has 200 or more stockholders of record with an "interested stockholder." These provisions only apply to a Nevada corporation that, at the time the potential acquirer became an interested stockholder, has a class or series of voting shares listed on a national securities exchange, or has a class or series of voting shares traded in an "organized market" and satisfies certain specified public float and stockholder levels. As we do not now meet those requirements, we do not believe that these provisions are currently applicable to us. However, to the extent they become applicable to us in the future, they may have the effect of delaying or making it more difficult to affect a change in control of the Company in the future.

A corporation affected by these provisions may not engage in a combination within two years after the interested stockholder acquires his, her or its shares unless the combination or purchase is approved by the board of directors before the interested stockholder acquired such shares. Generally, if approval is not obtained, then after the expiration of the two-year period, the business combination may be consummated with the approval of the board of directors before the person became an interested stockholder or a majority of the voting power held by disinterested stockholders, or if the consideration to be received per share by disinterested stockholders is at least equal to the highest of:

- the highest price per share paid by the interested stockholder within the three years immediately preceding the date of the announcement of the combination or within three years immediately before, or in, the transaction in which he, she or it became an interested stockholder, whichever is higher;
- the market value per share on the date of announcement of the combination or the date the person became an interested stockholder, whichever is higher; or
- if higher for the holders of preferred stock, the highest liquidation value of the preferred stock, if any.

Generally, these provisions define an interested stockholder as a person who is the beneficial owner, directly or indirectly of 10% or more of the voting power of the outstanding voting shares of a corporation, and define combination to include any merger or consolidation with an interested stockholder, or any sale, lease, exchange, mortgage, pledge, transfer or other disposition, in one transaction or a series of transactions with an interested stockholder of assets of the corporation:

- having an aggregate market value equal to 5% or more of the aggregate market value of the assets of the corporation;
- having an aggregate market value equal to 5% or more of the aggregate market value of all outstanding shares of the corporation; or
- representing 10% or more of the earning power or net income of the corporation.

UNDERWRITING

We are offering the units described in this prospectus through the underwriters named below. We have entered into an underwriting agreement dated , 2023 with Dawson James Securities, Inc. as the representative of the several underwriters named below ("**Dawson**" or the "**Representative**"), in connection with this offering. Dawson is acting as the sole book-running manager in this offering. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and the underwriters have agreed to purchase, at the public offering price, less the underwriting discounts and commissions, as set forth on the cover page of this prospectus, the number of Units and Pre-Funded Units set forth opposite their respective name s below.

Underwriters	Number of Units	Number of Pre-Funded Units
Dawson James Securities, Inc.		
Total		

The underwriters are committed to purchase all the Units and Pre-Funded Units offered by us if they buy any of them. However, the underwriters are not obligated to purchase the shares and Investor Warrants covered by the underwriters' over-allotment option described below. The underwriters are offering the Units and Pre-Funded Units, subject to prior sale, when, as and if issued to and accepted by them. The underwriting agreement provides that the obligations of the underwriters to purchase the Units and Pre-Funded Units included in this offering are subject to approval of legal matters by their counsel and to other conditions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

We have been advised by the underwriters that it intends to make a market in our shares of Common Stock but that they are not obligated to do so and may discontinue making a market at any time without notice.

In connection with this offering, the underwriters or securities dealers may distribute prospectuses electronically.

Option to Purchase Additional Shares and/or Investor Warrants

We have granted the underwriters an option, exercisable for 45 days after the date of this prospectus, to purchase up to an additional shares of Common Stock and/or Investor Warrants to purchase up to an additional shares of Common Stock (equal to 15% of the shares of Common Stock (and Pre-Funded Warrants, if any) and Investor Warrants sold in this offering), in any combination, at the public offering price per share of Common Stock and per Investor Warrant, respectively, less the underwriting discounts payable by us, solely to cover over-allotments, if any. If any additional shares of Common Stock and/or Investor Warrants are purchased, the underwriters will offer these shares of Common Stock and/or Investor Warrants on the same terms as those on which the other securities are being offered in this offering.

Discounts and Commissions

The underwriters propose to offer the Units and Pre-Funded Units to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $ per Unit. The underwriters may offer the Units and Pre-Funded Units through one or more of their affiliates or selling agents. If all the Units and Pre-Funded Units are not sold at the public offering price, the underwriters may change the offering price and the other selling terms. After this offering, the public offering price and concession may be changed by the underwriters. No such change will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

The underwriting discount is equal to the public offering price per share less the amount paid by the underwriters to us per Unit. The underwriting discount was determined through an arm's length negotiation between us and the Representative. The underwriters' commissions and discounts will be 8% of the gross proceeds of this offering (or 4% on any orders from investors introduced to the offering by the Company), or $ per Unit based on the public offering price set forth on the cover page of this prospectus.

The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses, to us assuming both no exercise and full exercise by the underwriters of their over-allotment option:

	Per Unit	Per Pre-Funded Unit	Total Without Option	Total With Option
Public offering price	$	$	$	$
Underwriting discounts and commissions	$	$	$	$
Proceeds, before expenses, to us	$	$	$	$

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discount will be approximately $775,000.

Indemnification

Pursuant to the underwriting agreement, we have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that the underwriters or such other indemnified party may be required to make in respect of those liabilities.

Lock-Up Agreements

We, our directors and executive officers have agreed, subject to limited exceptions, for a period of six months after the closing of this offering, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exchangeable for our Common Stock either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of Dawson. Dawson may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Exclusivity Tail

We have entered into an engagement letter with Dawson to serve as our lead underwriter in the Primary Offering (the "**Engagement Letter**"). The Engagement Letter is on a month-to-month basis, renewing automatically for successive month periods, unless earlier terminated in accordance with the terms of the Engagement Letter (the "**Engagement Period**"). We have agreed that until the Engagement Period terminates, Dawson will act as our exclusive underwriter, agent, or advisor if we proceed with an any alternative offering, whether registered or unregistered, of our equity securities or a reverse merger during the Engagement Period.

Upon the closing of an offering or if an offering is not consummated before the Engagement Period, we have also agreed to pay Dawson a tail fee equal to the compensation equivalent for this offering, if any investor, who was brought over-the-wall or introduced to us by Dawson during the term of its engagement, provides us with capital in any financing of equity, equity-linked or debt or other capital raising transaction during the 12 month period following the closing of an offering or the expiration or termination of our engagement of Dawson.

Right of First Refusal

We have granted a right of first refusal to Dawson pursuant to which it has the right to act as the sole managing underwriter and sole book runner, sole placement agent, or sole sales agent, for any and all future public or private equity, equity-linked or debt (excluding commercial bank debt) offerings of the Company, or any successor to or any subsidiary of the Company, at any time prior to the 12 month anniversary of the closing date of this offering. In accordance with FINRA Rule 5110(g)(6)(A), such right of first refusal shall not have a duration of more than three years from the commencement of sales of this offering. Additionally, in accordance with FINRA Rule 5110(g)(5)(B), such right of first refusal shall automatically terminate in the event the letter of engagement is terminated for cause.

Other Relationships

Dawson has served as our placement agent for the Bridge Offering and the Uplist PIPE. In connection with the Bridge Offering, the Company paid Dawson a cash fee equal to 8.0% of the aggregate gross proceeds of the Bridge Offering, which was $193,977, and reimbursement of expenses of $50,000. Additionally, on September 7, 2023 the Company issued to Dawson, or its designees, the Placement Agent Warrants to purchase an aggregate of 55,242 shares of Common Stock. The Placement Agent Warrants are exercisable at any time and from time to time, in whole or in part, until September 7, 2028, at a price per share equal to $2.20 (which will increase to $5.15625 at the closing of the Uplist Transaction, representing 125% of the assumed price per share of Common Stock in the Uplist Transaction, as required by FINRA). The Company will pay Dawson a cash fee equal to 8.0% of the aggregate gross proceeds of the Uplist PIPE (expected to be $566,400), will reimburse DJ for legal and other expenses of up to $150,000 and will issue to Dawson, or its designees, the PIPE Placement Agent Warrants to purchase an aggregate of 85,839 shares of Common Stock. The PIPE Placement Agent Warrants will be exercisable at any time and from time to time, in whole or in part, during the five-year period commencing upon issuance, at a price per share equal to $5.15625 (which is 125% of the price per Unit sold in this offering).

The above warrants and the underlying shares may be deemed to be compensation by FINRA, and therefore will be subject to FINRA Rule 5110(e)(1). In accordance with FINRA Rule 5110(e)(1), neither the warrants nor any of our shares of common stock issued upon exercise of the warrants may be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities by any person, for a period of 180 days immediately following the commencement date of sales in this offering, subject to certain exceptions. In addition, the foregoing warrants may not be exercised more than five years from the date of commencement of sales in this offering.

The underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

Nasdaq Listing

Our shares of Common Stock are quoted on the OTCQB under the symbol “ARTH” and there is no established public trading market for the Investor Warrants. We have applied to list our Common Stock and Investor Warrants on the Nasdaq Capital Market under the symbol “ARTH” and “ARTHW ,” respectively. There is no assurance, however, that our Common Stock or Investor Warrants will ever be listed on the Nasdaq Capital Market or an Alternate Exchange. We will not consummate this offering unless our Common Stock is approved for listing on the Nasdaq Capital Market or an Alternate Exchange.

Price Stabilization, Short Positions

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our shares of Common Stock during and after this offering, including:

- stabilizing transactions;
- short sales;
- purchases to cover positions created by short sales;
- imposition of penalty bids; and
- syndicate covering transactions.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our shares of Common Stock while this offering is in progress. Stabilization transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. These transactions may also include making short sales of our shares of Common Stock, which involve the sale by the underwriters of a greater number of shares of Common Stock than they are required to purchase in this offering and purchasing shares of Common Stock on the open market to cover short positions created by short sales. Short sales may be “covered short sales,” which are short positions in an amount not greater than the underwriters’ option to purchase additional shares referred to above, or may be “naked short sales,” which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are short sales made in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of Common Stock in the open market that could adversely affect investors who purchased in this offering.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the Representative has repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

These stabilizing transactions, short sales, purchases to cover positions created by short sales, the imposition of penalty bids and syndicate covering transactions may have the effect of raising or maintaining the market price of our Common Stock or preventing or retarding a decline in the market price of our Common Stock. As a result of these activities, the price of our Common Stock may be higher than the price that otherwise might exist in the open market. The underwriters may carry out these transactions on Nasdaq, in the over-the-counter market or otherwise. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the shares. Neither we, nor the underwriters make any representation that the underwriters will engage in these stabilization transactions or that any transaction, once commenced, will not be discontinued without notice.

Determination of Offering Price

The public offering price for our securities in this offering will be determined by negotiation among us and the Representative. The principal factors to be considered in determining the public offering price include:

- the information set forth in this prospectus and otherwise available to the Representative;
- our history and prospects and the history and prospects for the industry in which we compete;
- our past and present financial performance;
- our prospects for future earnings and the present state of our development;
- the general condition of the securities market at the time of this offering;
- the recent market prices of, and demand for, publicly traded shares of generally comparable companies; and
- other factors deemed relevant by the Representative and us.

The estimated public offering price set forth on the cover page of this prospectus and throughout this prospectus is subject to change as a result of market conditions and other factors. We offer no assurances that the public offering price will correspond to the price at which our securities will trade on the Nasdaq Capital Market or an Alternate Exchange subsequent to this offering. Neither we nor the underwriters can assure investors that an active trading market will develop for our shares of Common Stock or that the shares of Common Stock will trade in the public market at or above the public offering price.

Affiliations

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and their affiliates may from time to time in the future engage with us and perform services for us or in the ordinary course of their business for which they will receive customary fees and expenses. In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of ours. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of these securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in these securities and instruments.

Electronic Distribution

A prospectus in electronic format may be made available on the Internet sites or through other online services maintained by the underwriters participating in this offering, or by its affiliates. In those cases, prospective investors may view offering terms online and, depending upon the particular underwriter, prospective investors may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' websites and any information contained in any other website maintained by the underwriters is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or each underwriter in its capacity as underwriter and should not be relied upon by investors.

Selling Restrictions

Canada. The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31 103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33 105 *Underwriting Conflicts* (NI 33 105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding the underwriters' conflicts of interest in connection with this offering.

European Economic Area. In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "**Relevant Member State**") an offer to the public of any securities may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by us or the underwriters of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase any securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom. The underwriters have represented and agreed that:

- they have only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by them in connection with the issue or sale of the securities in circumstances in which Section 21(1) of the FSMA does not apply to us; and

- they have complied and will comply with all applicable provisions of the FSMA with respect to anything done by them in relation to the securities in, from or otherwise involving the United Kingdom.

Switzerland. The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the SIX) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the investor protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of securities.

Australia. No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (ASIC), in relation to the offering.

This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the Corporations Act) and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the securities may only be made to persons (the Exempt Investors) who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the securities without disclosure to investors under Chapter 6D of the Corporations Act.

The securities applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring securities must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in the Cayman Islands. No invitation, whether directly or indirectly, may be made to the public in the Cayman Islands to subscribe for our securities.

Taiwan. The securities have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the securities in Taiwan.

Notice to Prospective Investors in Hong Kong. The contents of this prospectus have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this prospectus, you should obtain independent professional advice. Please note that (i) our shares may not be offered or sold in Hong Kong, by means of this prospectus or any document other than to "professional investors" within the meaning of Part I of Schedule 1 of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) (SFO) and any rules made thereunder, or in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong) (CO) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO, and (ii) no advertisement, invitation or document relating to our shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the SFO and any rules made thereunder.

Notice to Prospective Investors in the People's Republic of China. This prospectus may not be circulated or distributed in the PRC and the shares may not be offered or sold, and we will not offer or sell, to any person for re-offering or resale directly or indirectly to any resident of the PRC, except pursuant to applicable laws, rules and regulations of the PRC. For the purpose of this paragraph only, the PRC does not include Taiwan and the special administrative regions of Hong Kong and Macau.

LEGAL MATTERS

Lowenstein Sandler LLP, Roseland, New Jersey, is acting as counsel in connection with the registration of our securities under the Securities Act. The validity of the securities being offered hereby has been passed upon for us by McDonald Carano LLP, Reno, Nevada. ArentFox Schiff LLP, Washington, D.C, advised the underwriters in connection with the offering of the securities.

EXPERTS

Baker Tilly US, LLP, an independent registered public accounting firm, has audited our consolidated financial statements as of and for the years ended September 30, 2022 and 2021, as stated in its report appearing herein, and such audited consolidated financial statements have been so included in reliance upon the report of such firm given upon its authority as experts in accounting and auditing. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website, athttp://www.sec.gov, that contains registration statements, reports, proxy statements and other information regarding registrants that file electronically with the SEC, including us. Our website address is http://www.archtherapeutics.com. We have not incorporated by reference into this prospectus the information on, or that can be accessed through, our website, and you should not consider it to be a part of this document. You should not rely on any information on that website in making your decision to purchase shares of our Common Stock.

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus is part of that registration statement. This prospectus does not contain all of the information set forth in the registration statement or the exhibits to the registration statement. For further information with respect to us and the securities we are offering pursuant to this prospectus, you should refer to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete, and you should refer to the copy of that contract or other documents filed as an exhibit to the registration statement. You may read or obtain a copy of the registration statement at the SEC's website referred to above.

Arch Therapeutics, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements give effect to a 1-for-8 reverse stock split of the common stock of Arch Therapeutics, Inc. and Subsidiary (the "Company") which will take place immediately prior to the effectiveness of the registration statement. The following report is in the form which will be furnished by Baker Tilly US, LLP, an independent registered public accounting firm, upon completion of the 1-for-8 reverse stock split of the common stock of the Company described in Note 1 to the consolidated financial statements and assuming that from December 28, 2022, except for the effects of the 1-for-200 reverse stock split described in Note 2, as to which the date is January 23, 2023, to the date of such completion, no other material events have occurred that would affect the consolidated financial statements or the required disclosures therein.

/s/ Baker Tilly, US, LLP
Tewksbury, Massachusetts

November 8, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of Arch Therapeutics, Inc. and Subsidiary

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Arch Therapeutics, Inc. and Subsidiary (the "Company") as of September 30, 2022 and 2021, the related consolidated statements of operations, changes in stockholders' deficit, and cash flows for each of the two years in the period ended September 30, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended September 30, 2022, in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty

The accompanying consolidated financial statements have been prepared assuming that Arch Therapeutics, Inc. and Subsidiary will continue as a going concern. As discussed in Notes 1 and 2 to the consolidated financial statements, the Company has an accumulated deficit, has suffered significant net losses and negative cash flows from operations, only recently commenced generating limited operating revenues and has limited working capital that raises substantial doubt about its ability to continue as a going concern. Management's plans regarding these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accounting for Complex Financial Instruments

As described in Note 10, the Company entered a transaction (the 2022 Note Offering) that included the issuance of $4.23 million in aggregate principal of senior secured convertible promissory notes, 7,979 shares of Common Stock, warrants to purchase 53,195 shares of the Company's common stock (the 2022 Warrants) and warrants to purchase 3,939 shares of the Company's common stock (the 2022 Placement Agent Warrants). In addition, in conjunction with the 2022 Note Offering, certain Series 2 note holders exchanged their notes in the aggregate amount of approximately $700,000 of principal and interest (the Series 2 exchange), for senior secured convertible promissory notes of the Company.

We identified the accounting for these complex financial instruments, including the evaluation for potential embedded derivatives, accounting for the Series 2 exchange, and the classification of the 2022 Warrants and the 2022 Placement Agent Warrants as a critical audit matter. The application of the accounting guidance applicable to the transaction, including the evaluation for potential embedded derivatives, accounting for the Series 2 exchange, and the classification of the related warrants is complex, and therefore, applying such guidance to the contract terms is complex and requires significant management judgement. Auditing these elements involved especially complex auditor judgement due to the nature of the terms of these instruments, and the effort required to address these matters, including the extent of specialized skills and knowledge required.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others:

- Inspecting the agreements associated with the transaction and evaluating the completeness and accuracy of the Company's technical accounting analysis and application of the relevant accounting literature.

- Utilizing personnel with specialized knowledge and skills in technical accounting to assist in assessing management's analysis of the senior secured convertible promissory notes and 2022 Warrants and 2022 Placement Agent warrants, and the Series 2 exchange, including the evaluation of potential embedded derivatives, and the classification of the 2022 Warrants and 2022 Placement Agent warrants including: (i) evaluating the contracts to identify relevant terms that affect the recognition in the consolidated financial statements, and (ii) assessing the appropriateness of conclusions reached by management.

We have served as the Company's auditor since 2013.

Tewksbury, Massachusetts
December 28, 2022, except for the effects of the 1-for-200 reverse stock split described in Note 2, as to which the date is January 23, 2023. (November , 2023 as to the effects of the 1-for-8 reverse stock split discussed in Note 1)

Arch Therapeutics, Inc. and Subsidiary
Consolidated Balance Sheets
As of September 30, 2022 and 2021

	September 30, 2022	September 30, 2021
ASSETS		
Current assets:		
Cash	$ 746,940	$ 2,266,639
Inventory	1,414,848	1,093,765
Prepaid expenses and other current assets	436,407	307,341
Total current assets	2,598,195	3,667,745
Long-term assets:		
Property and equipment, net	2,044	5,240
Other assets	3,500	3,500
Total long-term assets	5,544	8,740
Total assets	$ 2,603,739	$ 3,676,485
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 1,328,000	$ 408,083
Accrued expenses and other liabilities	318,505	319,464
Insurance premium financing	247,933	-
Current portion of Series 1 convertible notes	550,000	-
Current portion of accrued interest	127,781	-
Current portion of derivative liability	748,275	1,000,000
Total current liabilities	3,320,494	1,727,547
Long-term liabilities:		
Series 1 convertible notes	-	550,000
Series 2 convertible notes	450,000	1,050,000
Senior secured convertible notes, net of discount and issuance costs	2,362,273	-
Accrued interest	204,575	167,137
Derivative liability	459,200	1,207,475
Total long-term liabilities	3,476,048	2,974,612
Total liabilities	6,796,542	4,702,159
Commitments and contingencies (Note 15)		
Stockholders' equity (deficit):		
Common stock, $0.001 par value, 500,000 shares authorized as of September 30, 2022 and 2021,156,179 and 148,232 shares issued as of September 30, 2022 and 2021, and 156,211 and 147,950 outstanding as of September 30, 2022 and 2021	156	148
Additional paid-in capital	50,879,814	48,771,097
Accumulated deficit	(55,072,773)	(49,796,919)
Total stockholders' deficit	(4,192,803)	(1,025,674)
Total liabilities and stockholders' deficit	$ 2,603,739	$ 3,676,485

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Operations
For the Years Ended September 30, 2022 and 2021

	Fiscal Year Ended September 30, 2022	Fiscal Year Ended September 30, 2021
Revenue	$ 15,652	$ 11,565
Operating expenses:		
Cost of revenues	51,489	26,282
Selling, general and administrative expenses	4,519,636	5,009,323
Research and development expenses	1,153,333	1,353,084
Total costs and expenses	5,724,458	6,388,689
Loss from operations	(5,708,806)	(6,377,124)
Other (expense) income:		
Interest expense	(567,048)	(150,531)
Gain on forgiveness of loan	-	178,229
Decrease to fair value of derivative	1,000,000	108,944
Total other income	432,952	136,642
Net loss	$ (5,275,854)	$ (6,240,482)
Loss per share - basic and diluted		
Net loss per common share - basic and diluted	$ (35.18)	$ (45.38)
Weighted common shares - basic and diluted	149,947	137,501

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Changes in Stockholders' Deficit
For the Years Ended September 30, 2022 and 2021

Fiscal Year Ended September 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2021	147,950	$ 148	$ 48,771,097	$ (49,796,919)	$ (1,025,674)
Net loss	-	-	-	(5,275,854)	(5,275,854)
Issuance of common stock and warrants, net of financing costs	7,979	8	1,609,133	-	1,609,141
Vesting of restricted stock Issued	250	-	-	-	-
Stock-based compensation expense	-	-	499,584	-	499,584
Balance at September 30, 2022	156,179	$ 156	$ 50,879,814	$ (55,072,773)	$ (4,192,803)

Fiscal Year Ended September 30, 2021	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2020	120,653	$ 121	$ 42,055,825	$ (43,556,437)	(1,500,491)
Net loss	-	-	-	(6,240,482)	(6,240,482)
Issuance of common stock and warrants, net of financing costs	26,953	27	6,219,206	-	6,219,233
Vesting of restricted stock issued	344	-	-		-
Stock-based compensation expense	-	-	496,066	-	496,066
Balance at September 30, 2021	147,950	$ 148	$ 48,771,097	$ (49,796,919)	$ (1,025,674)

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Cash Flows
For the Years Ended September 30, 2022 and 2021

	Fiscal Year Ended September 30, 2022	Fiscal Year Ended September 30, 2021
Cash flows from operating activities:		
Net loss	$ (5,275,854)	$ (6,240,482)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation	3,196	2,587
Stock-based compensation	499,583	496,066
Decrease to fair value of derivative	(1,000,000)	(108,944)
Inventory obsolescence charge	248,073	181,988
Accretion of discount and debt issuance costs on 2022 Notes	302,049	-
Gain on forgiveness of loan	-	(178,229)
Changes in operating assets and liabilities:		
(Increase) decrease in:		
Inventory	(569,156)	(307,760)
Prepaid expenses and other current assets	225,124	(91,668)
Increase (decrease) in:		
Accounts payable	846,869	66,033
Accrued interest	265,000	151,285
Accrued expenses and other liabilities	(959)	70,496
Net cash used in operating activities	(4,456,075)	(5,958,628)
Cash flows from investing activities:		
Purchases of property and equipment	-	(3,275)
Net cash used in investing activities	-	(3,275)
Cash flows from financing activities:		
Repayment of insurance premium financing	(106,257)	-
Proceeds received from convertible notes	-	1,050,000
Proceeds received from senior secured convertible notes	3,525,000	-
Proceeds from issued common stock and warrants, net of financing costs	-	6,219,233
Payment of 2022 Financing debt issuance costs	(482,367)	-
Net cash provided by financing activities	2,936,376	7,269,233
Net (decrease) increase in cash	(1,519,699)	1,307,330
Cash, beginning of year	2,266,639	959,309
Cash, end of year	$ 746,940	$ 2,266,639
Non-cash financing activities:		
Financing of insurance premium	$ 354,190	$ -
Issuance of restricted stock	$ 8,959	$ -
Fair value of 2022 Warrants issued (see Note 10)	$ 1,470,133	$ -
Fair value of 2022 Inducement Shares issued (see Note 10)	$ 314,523	$ -
Exchange of Series 2 Convertible Notes into Senior Secured Notes (See Note 10)	$ 699,781	$ -
Issuance of restricted stock in consideration for services performed	$ 30,840	$ 103,750
Fair Value of 2022 Placement Agent Warrants (see Note 10)	$ 219,894	-
Unpaid issuance costs in accounts Payable	$ 73,048	$ -

The accompanying notes are an integral part of these consolidated financial statements.

Notes to the Consolidated Financial Statements

1. DESCRIPTION OF BUSINESS

Arch Therapeutics, Inc. (together with its subsidiary, the "*Company*" or "*Arch*") was incorporated under the laws of the State of Nevada on September 16, 2009, under the name "Almah, Inc.". Effective June 26, 2013, the Company completed a merger (the "*Merger*") with Arch Biosurgery, Inc. (formerly known as Arch Therapeutics, Inc.), a Massachusetts corporation ("*ABS*"), and Arch Acquisition Corporation ("*Merger Sub*"), the Company's wholly owned subsidiary formed for the purpose of the transaction, pursuant to which Merger Sub merged with and into ABS and ABS thereby became the wholly owned subsidiary of the Company. As a result of the acquisition of ABS, the Company abandoned its prior business plan and changed its operations to the business of a biotechnology company. The Company's principal offices are located in Framingham, Massachusetts.

ABS was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006, as Clear Nano Solutions, Inc. On April 7, 2008, ABS changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. Effective upon the closing of the Merger, ABS changed its name from Arch Therapeutics, Inc. to Arch Biosurgery, Inc.

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5® Advanced Wound System, and has devoted substantially all of the Company's operational effort to the research, development and regulatory programs necessary to turn the Company's core technology into commercial products. To date, the Company has principally raised capital through the issuance of convertible debt, and the issuance of units consisting of its common stock, $0.001 par value per share ("*Common Stock*"), and warrants to purchase Common Stock ("*warrants*").

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of its potential future products. However, there can be no assurance that the Company will be successful in securing additional resources when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Reverse Stock Split

On July 18, 2023, the board of directors of the Company (the "Board") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "Amendment") to provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company executed a written consent approving the Amendment. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering. Although the Reverse Split is not yet effective, in order to achieve a consistent presentation of share data and per share information throughout the entire prospectus, all the relevant information relating to numbers of shares and per share information contained in these financial statements has been retrospectively adjusted to reflect the Reverse Split for all periods presented on the assumption that a 1-for-8 reverse stock split would have become effective since the earliest date covered by these consolidated financial statements.

No fractional shares will be issued in connection with the Reverse Split. We will round up any fractional shares resulting from the Reverse Split to the nearest whole share. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America ("*US GAAP*").

Basis of Presentation

The consolidated financial statements include the accounts of Arch Therapeutics, Inc. and its wholly owned subsidiary, Arch Biosurgery, Inc., a biotechnology company. All intercompany accounts and transactions have been eliminated in consolidation.

On January 6, 2023, the directors of the Company authorized a reverse share split of the issued and outstanding Common Shares in a ratio of 200:1, effective January 17, 2023 (the "*Reverse Share Split*"). All information included in these consolidated financial statements has been adjusted, on a retrospective basis, to reflect the Reverse Share Split, unless otherwise stated.

Use of Estimates

Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates.

Recently Issued and Adopted Accounting Guidance

In August 2020, the FASB issued ASU 2020-06, "*Debt with Conversion and other* Options (subtopic 470-20) and *Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40)*" ("*ASU 2020-06*"). The purpose of ASU 2020-06 is to address issues identified as a result of the complexity associated with applying generally accepted accounting principles ("*GAAP*") for certain financial instruments with characteristics of liabilities and equity. The amendments in ASU 2020-06 are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2023. Early adoption is permitted but no earlier than fiscal years beginning after December 15, 2020. The Company early adopted ASU 2020-06 using the full retrospective method, during our first quarter of fiscal year 2022, and the impact was considered immaterial on our consolidated financial statements.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. The Company had no cash equivalents as of September 30, 2022 and 2021.

Inventories

Inventories are stated at the lower of cost or net realizable value. The cost of inventories comprises expenditures incurred in acquiring the inventories, the cost of conversion and other costs incurred in bringing them to their existing location and condition. The cost of raw materials, goods-in-process and finished goods are determined on a First in First out (FiFo) basis. When determining net realizable value, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash. The Company maintains its cash in bank deposits accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to any significant credit risk on cash.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful life of the related asset. Upon sale or retirement, the cost and accumulated depreciation are eliminated from their respective accounts, and the resulting gain or loss is included in income or loss for the period. Repair and maintenance expenditures are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment when circumstances indicate the carrying value of an asset may not be recoverable in accordance with FASB ASC Topic 360, *Property, Plant and Equipment.* For assets that are to be held and used, impairment is recognized when the estimated undiscounted cash flows associated with the asset or group of assets is less than their carrying value. If impairment exists, an adjustment is made to write the asset down to its fair value, and a loss is recorded as the difference between the carrying value and fair value. Fair values are determined based on quoted market values, discounted cash flows or internal and external appraisals, as applicable. Assets to be disposed of are carried at the lower of carrying value or estimated net realizable value. For the years ended September 30, 2022 and 2021 there has not been any impairment of long-lived assets.

Leases

The Company determines if an arrangement is a lease at its inception. Operating lease right-of-use ("*ROU*") assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As our lease does not provide an implicit interest rate, the Company used an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Income Taxes

In accordance with FASB ASC Topic 740, *Income Taxes* ("*ASC 740*"), the Company recognizes deferred tax assets and liabilities for the expected future tax consequences or events that have been included in our consolidated financial statements and/or tax returns. Deferred tax assets and liabilities are based upon the differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions when management determines that it is more likely than not that a loss will be incurred related to these matters and the amount of the loss is reasonably determinable.

Revenue

In accordance with FASB ASC Topic 606, *Revenue Recognition*, the Company recognizes revenue through a five-step process: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) a performance obligation is satisfied.

The Company's source of revenue is product sales. Contracts with customers contain a single performance obligation and the Company recognizes revenue from product sales when the Company has satisfied our performance obligation by transferring control of the product to the customers. Control of the product transfers to the customer upon shipment from the Company's third-party warehouse. The Company launched a reimbursement support program in September 2022. Under the terms of the program, the invoice amount may be adjusted through full or partial write-offs based on actual reimbursement amounts paid by for Medicare and Medicaid Services ("CMS") for AC5 units applied and billed by doctors. As such, revenue, if any, for the units shipped in connection with the Company's reimbursement support program will be booked in future periods when all conditions have been satisfied.

Cost of Revenues

Cost of revenues includes product costs, warehousing, overhead allocation and royalty expenses.

Research and Development

The Company expenses internal and external research and development costs, including costs of funded research and development arrangements, in the period incurred.

Accounting for Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with the guidance of FASB ASC Topic 718, *Compensation-Stock Compensation* ("*ASC 718*"), which requires all share-based payments be recognized in the consolidated financial statements based on their fair values. In accordance with ASC 718, the Company has elected to use the Black-Scholes option pricing model to determine the fair value of options granted and recognizes the compensation cost of share-based awards on a straight-line basis over the vesting period of the award.

The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by the fair value of the common stock and a number of other assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The expected life for awards uses the simplified method for all "plain vanilla" options, as defined in ASC 718-10-S99, and the contractual term for all other employee and non-employee awards. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our awards. The dividend yield assumption is based on history and the expectation of paying no dividends. Stock-based compensation expense, when recognized in the consolidated financial statements, is based on awards that are ultimately expected to vest.

Fair Value Measurements

The Company measures both financial and nonfinancial assets and liabilities in accordance with FASB ASC Topic 820,*Fair Value Measurements and Disclosures*, including those that are recognized or disclosed in the consolidated financial statements at fair value on a recurring basis. The standard created a fair value hierarchy which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs that reflect the Company's own views about the assumptions market participants would use in pricing the asset or liability.

At September 30, 2022 and 2021, the carrying amounts of cash, accounts payables and accrued expenses and other liabilities approximate fair value because of their short-term nature. The carrying amounts for the Convertible Notes (See Notes 11 and 12) approximate fair value because borrowing rates and the terms are similar to comparable market participants. The carrying amounts of the Derivative Liabilities (See Note 7) are valued using Level 3 inputs and are recognized in the consolidated financial statements at fair value.

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with FASB ASC Topic 815, *Derivatives and Hedging* ("*ASC 815*"). Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate.

Complex Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks. The Company evaluates its financial instruments, including warrants, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. The Company values its derivatives using the Black-Scholes option-pricing model or other acceptable valuation models, including Monte-Carlo simulations. Derivative instruments are valued at inception, upon events such as an exercise of the underlying financial instrument, and at subsequent reporting periods. The classification of derivative instruments, including whether such instruments should be recorded as liabilities, is re-assessed at the end of each reporting period.

The Company reviews the terms of debt instruments, equity instruments, and other financing arrangements to determine whether there are embedded derivative features, including embedded conversion options that are required to be bifurcated and accounted for separately as a derivative financial instrument. Additionally, in connection with the issuance of financing instruments, the Company may issue freestanding options and warrants, including options or warrants to non-employees in exchange for consulting or other services performed.

The Company accounts for its common stock warrants in accordance with Accounting Standards Codification ("ASC") 815,*Derivatives and Hedging* ("ASC 815"). Based upon the provisions of ASC 815, the Company accounts for common stock warrants as liabilities if the warrant requires net cash settlement or gives the holder the option of net cash settlement, or it fails the equity classification criteria. The Company accounts for common stock warrants as equity if the contract requires physical settlement or net physical settlement or if the Company has the option of physical settlement or net physical settlement and the warrants meet the requirements to be classified as equity. Common stock warrants classified as liabilities are initially recorded at fair value on the grant date and remeasured at fair value each balance sheet date with the offset adjustments recorded in change in fair value of warrant liability within the consolidated statements of operations. Common stock warrants classified as equity are initially measured at fair value on the grant date and are not subsequently remeasured.

Financial Statement Reclassification

Certain balances in the prior year consolidated financial statements have been reclassified for comparison purposes to conform to the presentation in the current year consolidated financial statements. These reclassifications had no effect on the reported results of operations or financial position.

Subsequent Events

The Company evaluated all events or transactions through December 28, 2022, the date which these consolidated financial statements were issued. Please note the following matters deemed to be subsequent events.

CMS HCPCS Code Status

On December 5, 2022, the Company announced that the Centers for Medicare and Medicaid Services ("CMS") made a preliminary recommendation to establish a dedicated Healthcare Common Procedure Coding System ("HCPCS") Level II billing code specific to AC5® Advanced Wound System ("AC5"). The preliminary recommendation was discussed at CMS' First Biannual 2022 HCPCS Public Meeting, which was held on November 30, 2022. The HCPCS code would better enable providers to bill third party payors for AC5® Advanced Wound System that is used in doctors' offices. Although the establishment of a dedicated HCPCS code does not guarantee coverage or reimbursement, a HCPCS code specific to AC5® Advanced Wound System would also enhance the Company's ability to work directly with payors and expand access in outpatient settings.

Going Concern Basis of Accounting

As reflected in the consolidated financial statements, the Company has an accumulated deficit as of September 30, 2022, has suffered significant net losses and negative cash flows from operations, only recently commenced generating limited operating revenues, and has limited working capital. The continuation of the Company's business as a going concern is dependent upon raising additional capital, the ability to successfully market and sell its product and eventually attaining and maintaining profitable operations. In particular, as of September 30, 2022, the Company will be required to raise additional capital, obtain alternative means of financial support, or both, in order to continue to fund operations, and therefore there is substantial doubt about the Company's ability to continue as a going concern. The Company expects to incur substantial expenses into the foreseeable future for the research, development and commercialization of its current and potential products. In addition, the Company will require additional financing in order to seek to license or acquire new assets, research and develop any potential patents and the related compounds, and obtain any further intellectual property that the Company may seek to acquire. Finally, some of our product candidates or the materials contained therein (such as the Active Pharmaceutical Ingredients for our AC5® product line), are manufactured from facilities in areas impacted by the outbreak of the COVID-19, which could result in shortages due to ongoing efforts to address the outbreak. Historically, the Company has principally funded operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of common stock and warrants. Provisions in the Securities Purchase Agreements that the Company entered into on June 28, 2018 ("*2018 SPA*"), and July 6, 2022 ("*2022 SPA*") restrict the Company's ability to effect or enter into an agreement to effect any issuance by the Company or its subsidiary of Common Stock or securities convertible, exercisable or exchangeable for Common Stock (or a combination of units thereof) involving a Variable Rate Transaction (as defined in the 2018 SPA and 2022 SPA) including, but not limited to, an equity line of credit or "At-the-Market" financing facility until the institutional investors in the 2018 SPA collectively own less than 20% of the Series F Warrants and the Series G Warrants purchased by them pursuant to the and 2018 SPA, respectively and for a period of six months pursuant to the 2022 SPA. In addition, under the 2022 SPA, we are required to complete an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by February 15, 2023. See Note 6 for more information on the 2018 Financing, including the terms of the Series F Warrants and Series G Warrants. and Note 10 for more information on the 2022 Note Financing, including the terms of the 2022 Warrants and 2022 Placement Agent Warrants.

The 2021 SPA contains certain restrictions on our ability to conduct subsequent sales of our equity securities (See Note 9). The continued spread of COVID-19 and uncertain market conditions may also limit the Company's ability to access capital. If the Company is unable to obtain adequate capital, the Company may be required to reduce the scope, delay, or eliminate some or all of its planned activities. These conditions, in the aggregate, raise substantial doubt as to the Company's ability to continue as a going concern.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The consolidated financial statements do not include any adjustments that might result from this uncertainty.

3. PROPERTY AND EQUIPMENT

At September 30, 2022 and 2021, property and equipment consisted of:

	Estimated Useful Life (in years)	September 30, 2022	September 30, 2021
Furniture and fixtures	5	$ 9,357	$ 9,357
Leasehold improvements	Life of Lease	8,983	8,983
Computer equipment	3	14,416	14,416
Lab equipment	5	1,000	1,000
		33,756	33,756
Less - accumulated depreciation		31,712	28,516
Property and equipment, net		$ 2,044	$ 5,240

For the years ended September 30, 2022 and 2021 depreciation expense recorded was $3,196 and $2,587, respectively.

4. INVENTORIES

Inventories consist of the following:

	September 30, 2022	September 30, 2021
Finished Goods	$ 9,063	$ 249,571
Goods-in-process	1,405,785	844,194
Total	$ 1,414,848	$ 1,093,765

The Company capitalizes inventory that has been produced for commercial sale and has been determined to have a probable future economic benefit. The determination of whether or not the inventory has a future economic benefit requires estimates by management, to the extent that inventory is expected to expire prior to being sold or used for research and development or used for samples, the Company will write down the value of inventory. In evaluating the net realizable value of the inventory, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

5. INSURANCE PREMIUM FINANCING

In July 2022, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is approximately $354,000 and incurs interest at a rate of2.99%. The Company is required to make monthly payments of approximately $35,000 through April 2023. The outstanding balance as of September 30, 2022 was approximately $248,000.

6. REGISTERED DIRECT OFFERINGS

On September 30, 2016, the Company filed a registration statement with the SEC utilizing a “shelf” registration process, which was subsequently declared effective by the SEC on October 20, 2016 (such registration statement, the “*Shelf Registration Statement*”). Under the Shelf Registration Statement, the Company may offer and sell any combination of its Common Stock, warrants, debt securities, subscription rights, and/or units comprised of the foregoing to raise up to $50,000,000 in gross proceeds.

On February 20, 2017, the Company entered into a Securities Purchase Agreement (the “2017 SPA”) with six accredited investors (collectively, the "2017 Investors") providing for the issuance and sale by the Company to the 2017 Investors of an aggregate of 6,355 units at a purchase price of $960.00 per unit in a registered offering (the “2017 Financing”). The securities comprising the units sold in the 2017 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant equal to 55% of the shares of Common Stock at an exercise price of $1,200.00 per share (“Series F Warrant”) at any time prior to the fifth anniversary of the issuance date of the Series F Warrant subject to certain restrictions on exercise (the "2017“ Warrants”) and the shares issuable upon exercise of the 2017 Warrants (the "2017 Warrant Shares”).

On June 28, 2018, the Company entered into a Securities Purchase Agreement (“2018 SPA”) with eight accredited investors (collectively, the “2018 Investors”) providing for the issuance and sale by the Company to the 2018 Investors of an aggregate of 5,669 units at a purchase price of $800.00 per unit in a registered offering (“2018 Financing”). The securities comprising the units sold in the 2018 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase up to a number of shares of the Company’s Common Stock equal to 75% of the shares of Common Stock at an exercise price of $1,120.00 per share (“*Series G Warrant*”) at any time prior to the fifth anniversary of the issuance date of the Series G Warrant subject to certain restrictions on exercise (the “*2018 Warrants*”) and the shares issuable upon exercise of the 2018 Warrants (the “2018 Warrant Shares”).

On May 12, 2019, the Company entered into a Securities Purchase Agreement ("*2019 SPA*") with five accredited investors (collectively, the "*2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of 5,385 units at a purchase price of $520.00 per unit in a registered offering ("*2019 Financing*"). The securities comprising the units sold in the 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $640.00 per share ("*Series H Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series H Warrant subject to certain restrictions on exercise (the "*2019 Warrants*") and the shares issuable upon exercise of the *2019* Warrants (the "*2019 Warrant Shares*").

During the years ended September 30, 2022 and 2021, no Series F, Series G or Series H Warrants had been exercised. As of September 30, 2022, up to 4,252 and 5,385 shares may be acquired upon the exercise of the Series G and Series H Warrants, respectively.

During the year ended September 30, 2022, all 3,495 remaining Series F Warrants expired.

7. Derivative Liabilities

The Company accounted for the Series F Warrants, Series G Warrants and the Series H Warrants in accordance with ASC 815-10. Since the Company may be required to purchase its Series F Warrants, Series G Warrants and Series H Warrants for an amount of cash equal to $ 288.00, $176.00 and $85.28, respectively, for each share of Common Stock ("Minimum") they are recorded as liabilities at the greater of the Minimum or fair value. They are marked to market each reporting period through the Consolidated Statement of Operations. During the year ended September 30, 2022, the Company recognized income of $1,000,000 for the expiration of the Series F Warrants.

On the respective closing dates, the derivative liabilities related to the Series G Warrants and Series H Warrants were recorded at an aggregate fair value of $1,628,113. Given that the fair value of the derivative liabilities was less than the net proceeds, the remaining proceeds were allocated to Common Stock and additional-paid-in-capital. For the fiscal year ended September 30, 2021, the Company recorded income of $108,944 in connection with the decrease in the fair value of the derivative liability.

Fair Value Measurements Using Significant Unobservable Inputs - Year Ended September 30, 2022
(Level 3)

	Series F	Series G	Series H
Beginning balance at September 30, 2021	$ 1,000,000	$ 748,275	$ 459,200
Issuances	-	-	-
Adjustments for the expiration of warrant	(1,000,000)	-	-
Ending balance at September 30, 2022	$ -	$ 748,275	$ 459,200

Fair Value Measurements Using Significant Unobservable Inputs - Year Ended September 30, 2021
(Level 3)

	Series F	Series G	Series H
Beginning balance at September 30, 2020	$ 1,000,000	$ 748,275	$ 568,144
Issuances	-	-	-
Adjustments to estimated fair value	-	-	(108,944)
Ending balance at September 30, 2021	$ 1,000,000	$ 748,275	$ 459,200

The derivative liabilities are recorded as liabilities at September 30, 2022 using the greater of the minimum value or the Black Scholes Model with the following assumptions. As of September 30, 2022, the derivative liabilities are recorded at their minimum value.

	Series G	Series H
Closing price per share of Common Stock	$ 30.72	$ 30.72
Exercise price per share	$ 1,120.00	$ 640.00
Expected volatility	132.97%	122.50%
Risk-free interest rate	4.05%	4.14%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	0.69	1.57

During the year ended September 30, 2022, the Series F Warrants expired.

The derivative liabilities are recorded as liabilities at September 30, 2021 using the greater of the minimum value or the Black Scholes Model with the following assumptions. As of September 30, 2021, the derivative liabilities are recorded at their minimum value.

	Series F	Series G	Series H
Closing price per share of Common Stock	$ 0.96	$ 0.96	$ 0.96
Exercise price per share	$ 1,200.00	$ 1,120.00	$ 640.00
Expected volatility	90.28%	87.40%	86.59%
Risk-free interest rate	0.04%	0.19%	0.41%
Dividend yield	-	-	-
Remaining expected term of underlying securities (years)	0.34	1.70	2.58

8. OCTOBER 2019 REGISTERED DIRECT OFFERING

On October 16, 2019, the Company entered into a Securities Purchase Agreement (the "*October 2019 SPA*") with seven accredited investors (collectively, the "*October 2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of8,929 units at a purchase price of $280.00 per unit in a registered offering ("*October 2019 Financing*"). The securities comprising the units sold in the October 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $352.00 per share ("*Series I Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series I Warrant subject to certain restrictions on exercise and the shares issuable upon exercise of the Series I Warrants (collectively, the " *October 2019 Warrant Shares*"). As of October 18, 2019, the Company recorded the8,929 shares as Common Stock. Pursuant to the Engagement Agreement (as defined below), the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 670 shares (the "*Placement Agent Warrants*"). The 2019 Placement Agent Warrants have substantially the same terms as the Series I Warrants, except that the exercise price of the Placement Agent Warrants is $350.00 per share and the term of the Placement Agent Warrants is five years.

The gross proceeds to the Company from the October 2019 Financing, which were received as of October 18, 2019, were approximately $2.5 million before deducting financing costs of approximately $333,000 which includes approximately $158,000 of placement fees. The number of shares of the Company's Common Stock into which each of the Series I Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series I Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

The Company engaged H.C. Wainwright as its exclusive institutional investor placement agent (the "*Placement Agent*") in connection with the October 2019 SPA pursuant to an engagement agreement dated as of October 10, 2019 (the "*2019 Engagement Agreement*"). In consideration for the services provided by the Placement Agent, the Placement Agent was entitled to receive cash fees ranging from 6.0% to 8.2% of the gross proceeds received by the Company, as well as reimbursement for all reasonable expenses incurred by it in connection with its engagement. The Company received gross proceeds of approximately $2.5 million in the aggregate, resulting in a fee of approximately $158,000.

During the year ended September 30, 2022, no Series I Warrants or Placement Agent Warrants have been exercised. As of September 30, 2022, up to 8,929 and 670 shares may be acquired upon the exercise of the Series I Warrants and Placement Agent Warrants, respectively.

Common Stock

At October 18, 2019 the Closing Date of the October 2019 Financing, the Company issued8,929 shares of Common Stock.

Equity Value of Warrants

The Company accounted for the Series I Warrants and the Placement Agent Warrants relating to the aforementioned October 2019 Registered Direct Offering in accordance with ASC 815-40. Because the Series I Warrants and the Placement Agent Warrants are indexed to the Company's stock, they are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements.

9. 2021 REGISTERED DIRECT OFFERING

On February 11, 2021, the Company entered into a Securities Purchase Agreement (the "*2021 SPA*") with certain institutional and accredited investors (collectively, "*2021 Investors*") providing for the issuance and sale by the Company to the 2021 Investors of an aggregate of26,954 shares (the "Shares") of the Company's Common Stock, and warrants (the "*Series K Warrants*") to purchase an aggregate of20,215 shares (the "*Warrant Shares*") of Common Stock, at a combined offering price of $256.00 per share (the "*2021 Financing*"). The Series K Warrants have an exercise price of $272.00 per share and are exercisable for a period of5.5 years. The aggregate gross proceeds for the sale of the Shares and Series K Warrants were approximately $6.9 million, before deducting the Placement Agent's fees and expenses and other offering expenses payable by the Company, of approximately $700,000. Pursuant to an engagement agreement dated as of February 8, 2021 (the "*2021 Engagement Agreement*"), by and between the Company and the Placement Agent, the Company agreed to pay the Placement Agent cash fees equal to (i) 7.5% of the gross proceeds received by the Company from certain investors in the 2021 Financing, and (ii) 6.0% of the gross proceeds received by the Company from certain investors that had pre-existing relationships with the Company. In addition, the Placement Agent received a one-time non-accountable expense fee of $10,000, up to $50,000 for fees and expenses of legal counsel and other out-of-pocket expenses and $10,000 for clearing expenses. Pursuant to the 2021 Engagement Agreement, the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 7.5% of the aggregate number of Shares sold to the 2021 Investors, or warrants to purchase up to2,022 shares (the "2021 *Placement Agent Warrants*") of the Company's Common Stock. The 2021 Placement Agent 2 Warrants have substantially the same terms as the Series K Warrants, except that the exercise price of the 2021 Placement Agent Warrants is $320.00 per share. The 2021 Engagement Agreement contained indemnity and other customary provisions for transactions of this nature.

The 2021 SPA contained certain restrictions on the Company's ability to conduct subsequent sales of the Company's equity securities. In particular, we were prohibited from entering into or effecting a Variable Rate Transaction (as defined in the 2021 SPA) until February 11, 2022; provided, however, the Company may enter into and effect an at-the-market offering facility with the Placement Agent.

The number of shares of the Company's Common Stock into which each of the Series K Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series K Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). During the fiscal year ended September 30, 2022, no Series K Warrants or 2021 Placement Agent Warrants had been exercised. As of September 30, 2022, up to 20,215 and 2,022 shares may be acquired upon the exercise of the Series K Warrants and Placement Agent Warrants, respectively.

Common Stock

On February 17, 2021 the Closing Date of the 2021 Financing, the Company issued26,954 shares of Common Stock.

Equity Value of Warrants

The Company accounted for the Series K Warrants and the Placement Agent 2 Warrants relating to the aforementioned February 2021 Registered Direct Offering in accordance with ASC 815-40, *Derivatives and Hedging*. Because the Series K Warrants and the Placement Agent 2 Warrants are indexed to the Company's stock, they are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements.

10. 2022 CONVERTIBLE NOTE OFFERING

On July 7, 2022, the Company announced that it had entered into a Securities Purchase Agreement (the "2022 *SPA*") with certain institutional and accredited individual investors (collectively, the "*2022 Investors*") providing for the issuance and sale by the Company to the 2022 Investors of (i) Senior Secured Convertible Promissory Notes (each a "*2022 Note*" and collectively, the "*2022 Notes*") in the aggregate principal amount of $4.23 million, which includes an aggregate $0.705 million original issue discount in respect of the 2022 Notes; (ii) Warrants (the "*2022 Warrants*"), to purchase an aggregate of 53,195 shares (the "*2022 Warrant Shares*") of Common Stock; and (iii) 7,979 shares of Common Stock (the "*2022 Inducement Shares*") equal to 15% of the principal amount of the 2022 Notes divided by the closing price of the Common Stock immediately prior to the Closing Date (as defined below). The 2022 Notes, 2022 Warrants and 2022 Inducement Shares were issued as part of a convertible note offering authorized by the Company's board of directors (the "*2022 Note Offering*"). The aggregate gross proceeds for the sale of the 2022 Notes, 2022 Warrants and 2022 Inducement Shares was approximately $3.5 million, before deducting debt issuance costs of $775,000 consisting of fair value of the placement agent's warrants of approximately $220,000 and other estimated fees and offering expenses payable by the Company of approximately $555,000. The closing of the sales of these securities under the 2022 SPA occurred on July 6, 2022 (the "*2022 Closing Date*").

The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the Closing Date until the 2022 Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes. Any amount of principal or interest on the 2022 Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full.

The 2022 Notes are convertible into shares of Common Stock at the option of each holder of the 2022 Notes from the date of issuance at $3.12 (the "*Conversion Price*") through the later of (i) January 6, 2024 (the "*Maturity Date*") and (ii) the date of payment of the Default Amount (as defined in the 2022 Note); *provided, however*, certain 2022 Notes include a provision preventing such conversion if, as a result, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than 4.99% of the outstanding shares of the Common Stock (as applicable, the "*Ownership Limitation*") immediately after giving effect to the Conversion; and *provided further*, the holder, upon notice to us, may increase or decrease the Ownership Limitation; *provided that* (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of the Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The Conversion Price is subject to adjustment as set forth in the 2022 Notes.

The 2022 Notes contain customary events of default, which include, among other things, (i) our failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our insolvency; (iii) delisting of our Common Stock; (iv) our breach of any material covenant or other material term or condition under the 2022 Notes; and (v) our breach of any representations or warranties under the 2022 Notes which cannot be cured within five (5) days. Further, events of default under the 2022 Notes also include (i) the unavailability of Rule 144 on or after six (6) months from the First Closing Date or January 6, 2023; (ii) our failure to deliver the shares of Common Stock to the 2022 Note holder upon exercise by such holder of its conversion rights under the 2022 Note; (iii) our loss of the "bid" price for its Common Stock and/or a market and such loss is not cured during the specified cure periods; and (iv) our failure to complete an uplisting of our Common Stock to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by February 15, 2023 (an "*Uplist Transaction*").

The 2022 Warrants (i) have an exercise price of $79.52 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrant if, as a result of the exercise of the 2022 Warrant, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. The holder, upon notice to us, may increase or decrease the Ownership Limitation; provided that (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of our Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The number of shares of Common Stock into which each of the 2022 Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the 2022 Warrants, including standard antidilution provisions, and adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In the event of a Fundamental Transaction (as defined in the 2022 Warrants) holders of the 2022 Warrants would be entitled to receive alternate consideration in connection with such Fundamental Transaction, but only to the extent that holders of our Common Stock were entitled to receive the same. Moreover, as long as the 2022 Notes and 2022 Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes and 2022 Warrants of such more favorable terms and to use best efforts to effect such terms in the 2022 Notes and 2022 Warrants. Finally, because of the Company's net loss position, the shares underlying the 2022 Notes on an as converted basis are excluded from the calculation of basic and fully diluted earnings per share. Similarly, because of the Company's net loss position, there was no impact on the calculation of basic and fully diluted earnings per share related to the classification of the 2022 Warrants as participating securities.

The Company retained a placement agent in connection with the private placement of $2.4 million of the 2022 Notes to the institutional investors. The Company paid the 2022 Placement Agent 10% of the gross proceeds in the 2022 Placement Agent from certain institutional investors, or $240,000 and we also reimbursed the 2022 Placement Agent approximately $58,000 for non-accountable banking fees, legal fees and other expenses. In addition, we issued 2022 Placement Agent Warrants to purchase an aggregate of 3,939 shares of Common Stock. An additional $1.1 million was raised in connection with the placement of the private placement notes, which included certain accredited investors some of which were Board members and executive officers of the Company. Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the 2022 Senior Secured Convertible Notes. The investment made in the 2022 Senior Secured Convertible Notes made by the Board member and executive officers totaled $80,000.

In addition, as a part of the 2022 Convertible Notes Offering, certain holders (the "*Series Holders*") of the Company's 10% Series 2 Convertible Notes (the "*Series Notes*") agreed to exchange their Series 2 Notes for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "*Subordinated Notes*"). The Subordinated Notes are convertible into 9,571 shares of Common Stock at a conversion price of $73.12. The holders of the Subordinated Notes did not receive warrants or inducement shares. In connection with the issuance of the Subordinated Notes, the Series Holders entered into a subordination agreement on July 6, 2022 (the "*Closing Date*") to subordinate their rights in respect of the Subordinated Notes to the rights of the Investors in respect of the 2022 Notes. As of July 7, 2022, approximately $600,000 of the Series 2 Notes and accrued interest of approximately $100,000 were included in the exchange.

Further, in connection with the 2022 Note Financing, we are required to complete an Uplist Transaction by February 15, 2023 under the terms of the 2022 Notes. If we are unable to complete an Uplist Transaction, then the 2022 Notes will become immediately due and payable and we will be obligated to pay to each 2022 Note holder an amount equal to 125%, multiplied by the sum of the outstanding principal amount of the 2022 Notes plus any accrued and unpaid interest on the unpaid principal amount of the 2022 Notes to the date of payment, plus any default interest and any other amounts owed to the holder, payable in cash or shares of Common Stock.

During the fiscal year ended September 30, 2022, the Company recorded interest expense on the 2022 Notes of approximately $421,000 consisting of accrued interest of approximately $119,000 and accretion of original issue discount debt discount and issuance costs of approximately $302,000.

Allocation of Proceeds

The Company accounted for the Senior Secured Convertible Notes, the 2022 Warrants, and the 2022 Inducement Shares relating to the aforementioned July 2022 Senior Secured Convertible Promissory Notes in accordance with ASC 470-20-25-2 "Debt" which states that the allocation of the proceeds from the financing shall be based on the relative fair values of the securities issued at the time of the issuance. The 2022 Inducement Shares and the 2022 Warrants, which are indexed to the Company's stock, are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements. The allocated value of the 2022 Inducement Shares and the 2022 Warrants are $314,523 and $1,470,133, respectively. The allocated value of the Senior Secured Convertible Notes are $1,740,344 were allocated as long-term liabilities in the accompanying consolidated financial statements. The fair value of the 2022 Placement Agent Warrants of $219,894 are being accounted for as debt issuance costs and are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements. As of September 30, 2022, the net carrying amount of the Senior Secured Convertible Notes was $2,362,273 with unamortized debt discount and issuance costs of $2,567,507.

The 2022 Warrants and the 2022 Placement Agent Warrants were valued as of July 6, 2022 using the Black Scholes Model with the following assumptions:

	2022 Investor Warrants	2022 Placement Agent Warrants
Closing price per share of Common Stock	$ 79.84	$ 79.84
Exercise price per share	$ 79.52	$ 80.48
Expected volatility	88.44%	88.44%
Risk-free interest rate	2.96%	2.96%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	5.0	5.0

11. SERIES 1 AND SERIES 2 CONVERTIBLE NOTES

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ("*Series 1 Notes*") and Series 2 Convertible Notes ("Series 2 Notes", and collectively with the Series 1 Notes, the "*Convertible Notes*") in the aggregate principal amount of $550,000 and $1,050,000, respectively. The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. The Convertible Notes provide, among other things, for (i) a term of approximately three years; (ii) the Company's ability to prepay the Convertible Notes, in whole or in part, at any time; (iii) the automatic conversion of the Convertible Notes upon a Change of Control (all capitalized terms not otherwise defined to have the meaning ascribed to such terms of the Convertible Notes) into shares of the Company's Common Stock, at a per share price of $432.00 and $400.00 (the "*Conversion Price*") for the Series 1 Notes and Series 2 Notes, respectively; (iv) the ability of the holders of the Convertible Note (a "*Holder*") to convert the principal of the Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price; (v) the Company's ability to convert all Note Obligations outstanding upon a Qualified Equity Financing into shares of Common Stock at the respective Conversion Price; (vi) the Company's ability to convert the principal of the Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price in the event the volume weighted average price ("*VWAP*") of the Common Stock equals or exceeds $512.00 per share for at least fifteen consecutive Trading Days; (vii) the Company's ability to convert all outstanding Note Obligations into shares of Common Stock at the respective Conversion Price (an "*In-Kind Note Repayment*") in lieu of repaying the Note Obligations outstanding on the Maturity Date, provided, however, that in the case of an In-Kind Note Repayment, the outstanding Note Obligations will be calculated by increasing by thirty-five percent the aggregate sum of the unpaid Principal Amount held by each Holder and the accrued interest at a rate of ten percent per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent of the amount that is converted or prepaid. As consideration for agreeing to subordinate, the premium applicable in connection with an In-Kind Note Repayment at maturity was increased from thirty-five percent to sixty percent.

Beginning June 22, 2015 and through June 30, 2015, the Company entered into a series of substantially similar subscription agreements with 20 accredited investors providing for the issuance and sale by the Company to the 2015 Investors, in a private placement, of an aggregate of 8,995 Units at a purchase price of $352.00 per Unit. Each Unit consisted of a share of Common Stock and a Series D Warrant to purchase a share of Common Stock at an exercise price of $400.00 per share at any time prior to the fifth anniversary of the issuance date of the Series D Warrant and the shares issuable upon exercise of the Series D Warrants.

On June 3, 2020, the Company entered into an agreement (the "*Agreement*") with the holders of a majority (the "*Majority Holders*") of the outstanding warrants classified as "*Series D Warrants*", resulting in approximately $850,000 of proceeds as a result of the full exercise of all Series D Warrants. Under the terms of the Agreement, in exchange for fully exercising their remaining Series D Warrants for 2,955 shares of Common Stock on June 4, 2020, the Majority Holders were issued warrants to purchase 2,216 shares of Common Stock at an exercise price of $400.00 over a 1-year term ("*Series J Warrants*"). On November 6, 2020, as consideration for an investment in the Convertible Notes, the Company entered into an amendment to the Series J Warrants with a holder of a Series J Warrant exercisable for up to 2,110 shares of Common Stock, to extend the term of the Series J Warrant from one year to thirty months.

On June 22, 2020, the Company entered into a Series J Warrant Issuance Agreement (the "*Keyes Sulat Agreement*") with the Keyes Sulat Revocable Trust (the "*Trust*"), also a holder of outstanding Series D Warrants, resulting in approximately $82,000 of proceeds as a result of the full exercise of the Trust's Series D Warrants. Under the terms of the Keyes Sulat Agreement, in exchange for fully exercising the Trust's remaining Series D Warrants for 285 shares of Common Stock on June 22, 2020, the Trust was issued Series J Warrants to purchase 214 shares of Common Stock at an exercise price of $400.00 over a one-year term. James R. Sulat, a former member of the Board, is a co-trustee of the Trust, of which members of Mr. Sulat's immediate family are beneficiaries. Mr. Sulat disclosed his interest in the Trust to the Board prior to its approval of the transaction and abstained from voting on the transaction.

As described in Note 10, above, as a part of the 2022 Convertible Notes Offering, certain holders of the Series Notes agreed to exchange Notes with principal amounts of $600,000 and accrued interest of approximately $100,000 for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "*Exchanged Notes*"). As of July 6, 2022, $699,781 of principal and accrued interest of the Series 2 notes was exchanged for the Senior Secured Convertible Notes. In connection with the issuance of the Exchanged Notes, the Series Holders entered into a subordination agreement on the *Closing Date* to subordinate their rights to the rights of the Investors in respect of the 2022 Notes.

During the fiscal years ended September 30, 2022 and 2021, the Company recorded interest expense on the Series 1 and Series 2 Convertible Notes of approximately $146,000 and $150,000, respectively.

12. INCOME TAXES

The principal components of the Company's net deferred tax assets consisted of the following at September 30:

	2022	2021
Net operating loss carryforwards	$ 11,485,524	$ 10,022,020
Capitalized expenditures	1,535,736	1,703,849
Research and development credit carryforwards	946,243	946,158
Stock based compensation	1,427,946	2,352,432
Property and Equipment	2,616	2,740
Accrued expenses	162,191	57,812
Inventory allowance	70,805	62,946
Gross deferred tax assets	15,631,061	15,147,957
Deferred tax asset valuation allowance	(15,631,061)	(15,147,957)
Net deferred tax assets	$ -	$ -

The provision (benefit) for income taxes differs from the tax computed with the statutory federal income tax rate as follows:

	2022	2021
Expected income tax (benefit) at federal statutory rate	21.00%	21.00%
Increase/(Decrease) due to:		
State income taxes - net of federal benefit	3.65%	5.80%
Permanent Differences:		
Key man life insurance	---%	(0.01)%
Stock Based Compensation	(18.10)%	---%
R&D, taken as a credit	(0.23)%	(0.29)%
Adjustment to fair value of derivative	3.98%	0.37%
PPP Loan Forgiveness	---%	0.60%
Other	(1.14)%	(1.41)%
Change in Valuation Allowance	(9.16)%	(26.06)%
Total Income Tax Provision / (Benefit)	---%	---%

As of September 30, 2022 and 2021, the Company had federal net operating loss carryforwards totaling approximately $42,695,000 and $37,018,000, respectively, which may be available to offset future taxable income. The pre-2018 federal net operating loss carryforwards total approximately $21,750,000, and begin to expire in 2026. Due to the CARES Act, federal net operating losses generated in tax years beginning after December 31, 2017 can be carried forward indefinitely. As of September 30, 2022 and 2021, the Company has federal net operating loss carryforwards with an indefinite life of $20,945,000 and $15,268,000. As of September 30, 2022 and 2021, the Company had federal research and experimentation credit carryforwards of $626,000 and $643,000, respectively, which may be available to offset future income tax liabilities and which would begin to expire in 2028.

As of September 30, 2022 and 2021, the Company had state net operating loss carryforwards of approximately $40,367,000 and $36,033,000, respectively, which may be available to offset future taxable income and which would begin to expire in 2030. As of September 30, 2022 and 2021, the Company had state research and development credit carryforwards of $406,000 and $384,000, respectively, which may be able to offset future income tax liabilities and which would begin to expire in 2023.

As the Company has not yet achieved profitable operations, management believes the tax benefits as of September 30, 2022 and 2021 did not satisfy the realization criteria set forth in FASB ASC Topic 740, *Income Taxes*, and therefore has recorded a valuation allowance for the entire deferred tax asset. The valuation allowance increased in 2022 by approximately $483,000 and increased in 2021 by approximately $1,626,000. The Company's effective income tax rate differed from the federal statutory rate due to state taxes and the Company's full valuation allowance and stock based compensation, the latter of which reduced the Company's effective federal income tax rate to zero.

The Company experienced an ownership change as a result of the Merger described in Note 1, causing a limitation on the annual use of the net operating loss carryforwards, which are subject to a substantial annual limitation due to the ownership change limitations set forth in Internal Revenue Code Section 382 and similar state provisions. A formal Section 382 study has not been performed.

As of September 30, 2022, the Company is open to examination in the U.S. federal and certain state jurisdictions for tax years ended September 30, 2022, 2021, 2010 and 2019. In addition, any loss years remain open to the extent that losses are available for carryover to future years. Therefore, the tax years ended 2006 through 2022 remain open for examination by the IRS.

The Coronavirus Aid, Relief and Economic Security (CARES) Act was enacted on March 27, 2020. The CARES Act affected items such as carryback periods for net operating losses, modifications to the net interest deduction limitations and changes to tax depreciation methods. The company has taken the CARES Act into consideration for the tax year ended September 30, 2022 and continues to evaluate the impact of the CARES act on the business.

13. PAYROLL PROTECTION PROGRAM LOAN

On April 25, 2020, the Company executed a promissory note (the "*PPP Note*") evidencing an unsecured loan in the amount of $176,300 under the Paycheck Protection Program (the "*PPP Loan*"). The Paycheck Protection Program (or "*PPP*") was established under the Cares Act and is administered by the U.S. Small Business Administration ("*SBA*"). The Loan has been made through First Republic Bank (the "*Lender*").

The PPP Loan had a two-year term and bears interest at a rate of 1.00% per annum. Monthly principal and interest payments are deferred until the SBA makes a decision on our loan forgiveness application. Unless the PPP Loan is forgiven, the Company would have been required to make monthly payments of principal and interest of approximately $20,000 to the Lender.

The PPP Note contains customary events of default relating to, among other things, payment defaults, providing materially false and misleading representations to the SBA or Lender, or breaching the terms of the PPP Loan documents. The occurrence of an event of default may result in the immediate repayment of all amounts outstanding, collection of all amounts owing from the Company, or filing suit and obtaining judgment.

Under the terms of the CARES Act, PPP Loan recipients can apply for and be granted forgiveness for all or a portion of the loan granted under the PPP. Such forgiveness will be determined, subject to limitations, based on the use of loan proceeds for payment of payroll costs and any payments of mortgage interest, rent, and utilities. However, no assurance is provided that forgiveness for any portion of the PPP Loan will be obtained. During November 2020, the Company applied for forgiveness of the PPP Loan. On May 28, 2021, the Company received notice that the SBA completed review and all principal and interest has been forgiven. For the fiscal year ended September 30, 2021, approximately $178,000 was recorded to Gain on forgiveness of loan in Other Income in the consolidated statements of operations.

14. STOCK-BASED COMPENSATION

2013 Stock Incentive Plan

On June 18, 2013, the Company established the 2013 Stock Incentive Plan (the "*2013 Plan*"). Under the 2013 Plan, during the fiscal year ended September 30, 2021, a maximum number of 19,447 shares of the Company's authorized and available common stock could be issued in the form of options, stock appreciation rights, sales or bonuses of restricted stock, restricted stock units or dividend equivalent rights, and an award may consist of one such security or benefit, or two or more of them in any combination or alternative. The 2013 Plan provides that on the first business day of each fiscal year commencing with fiscal year 2014, the number of shares of our common stock reserved for issuance under the 2013 Plan for all awards except for incentive stock option awards will be subject to increase by an amount equal to the lesser of (A) 1,875 Shares, (B) four (4) percent of the number of shares outstanding on the last day of the immediately preceding fiscal year of the Company, or (C) such lesser number of shares as determined by the Company's Board of Directors (the "*Board*"). The exercise price of each option shall be the fair value as determined in good faith by the Board at the time each option is granted. On October 1, 2021, the aggregate number of authorized shares under the Plan was further increased by 1,875 shares to a total of 21,322 shares.

The exercise price of each option is equal to the closing price of a share of our common stock on the date of grant.

Share-based awards

During the year ended September 30, 2022, the Company granted 297 options to employees and directors and 532 options to consultants to purchase shares of common stock under the 2013 Plan**.**

Share-based compensation expense for awards granted during the year ended September 30, 2022 was based on the grant date fair value estimated using the Black-Scholes Option Pricing Model. The following assumptions were used to calculate the fair value of share-based compensation for the year ended September 30, 2022; expected volatility, 79.44% - 119.44%, risk-free interest rate, 0.13% - 2.85%, expected dividend yield, 0%, expected term, 5.6 years.

Common Stock Options

Stock compensation activity under the 2013 Plan for the year ended September 30, 2022 follows:

	Option Shares Outstanding	Weighted Average Exercise Price	Average Remaining Contractual Term (years)	Weighted Aggregate Intrinsic Value
Outstanding at September 30, 2021	15,562	$ 464.00	1.83	$ 140,151
Awarded	829	$ 48.00		
Forfeited/Cancelled	(4,062)	$ 560.00		
Outstanding at September 30, 2022	12,329	$ 416.00	1.46	$ 16,900
Vested at September 30, 2022	10,316	$ 464.00	1.52	$ -
Vested and expected to vest at September 30, 2022	12,329	$ 416.00	1.46	$ 16,900

As of September 30, 2022, 5,171 shares are available for future grants under the 2013 Plan. Share-based compensation expense recorded in the Company's Consolidated Statements of Operations for the year ended September 30, 2022 and 2021 resulting from stock options awarded to the Company's employees, directors and consultants was approximately $459,000 and $391,000, respectively. Of this amount during the years ended September 30, 2022 and 2021, $148,000 and $124,000, respectively, were recorded as research and development expenses, and $311,000 and $267,000, respectively were recorded as general and administrative expenses in the Company's Consolidated Statements of Operations.

During the years ended September 30, 2022 and 2021, no stock options awarded under the 2013 Stock Incentive Plan were exercised for cash. During the years ended September 30, 2022 and 2021, no stock options awarded under the 2013 Stock Incentive Plan were exercised on a cashless basis.

As of September 30, 2022, there is approximately $181,000 of unrecognized compensation expense related to unvested stock-based compensation arrangements granted under the 2013 Plan. That cost is expected to be recognized over a weighted average period of 2.47 years.

Restricted Stock

On October 14, 2020, the Company awarded 32 shares of Restricted Stock to a consultant. The shares subject to this grant were awarded under the 2013 Plan and vested 90 days from the date of the award.

On January 27, 2021, the Company awarded 313 shares of Restricted Stock to a consultant. The shares subject to this grant were awarded under the 2013 Plan and vested immediately.

On July 30, 2021, the Company awarded 94 shares of Restricted Stock to an employee. The shares subject to this grant were awarded under the 2013 Plan and 32 shares vest on each of the following dates: January 12, 2022, July 12, 2022 and January 12, 2023.

On September 27, 2021, the Company awarded 188 shares of Restricted Stock to a consultant. The shares subject to this grant were awarded under the 2013 Plan and 1/12 of the shares will vest on each of the next twelve monthly anniversaries.

Restricted stock activity in shares under the 2013 Plan for the years ended September 30, 2022 and 2021 follows:

	2022	2021
Non Vested at September 30, 2021 and 2020	282	
Awarded	-	625
Vested	(250)	(344)
Forfeited	-	-
Non Vested at September 30, 2022 and 2021	32	282

The weighted average restricted stock award date fair value information for the years ended September 30, 2022 and 2019 follows:

	2022	2021
Non Vested at September 30, 2021 and 2020	$ 160.00	$ -
Awarded		208.00
Vested	(160.00)	(256.00)
Forfeited		-
Non Vested at September 30, 2022 and 2021	$ 144.00	$ 160.00

For the years ended September 30, 2022 and 2021 compensation expense recorded for the restricted stock awards was approximately $40,000 and $105,000, respectively. As of September 30, 2022, there is approximately $3,000 of unrecognized compensation expense related to unvested stock-based compensation arrangements granted under the 2013 Plan.

15. COMMITMENTS AND CONTINGENCIES

In the ordinary course of business, the Company enters into various agreements containing standard indemnification provisions. The Company's indemnification obligations under such provisions are typically in effect from the date of execution of the applicable agreement through the end of the applicable statute of limitations. The aggregate maximum potential future liability of the Company under such indemnification provisions is uncertain. As of September 30, 2022 and 2021, no amounts have been accrued related to such indemnification provisions.

From time to time, the Company may be exposed to litigation in connection with its operations. The Company's policy is to assess the likelihood of any adverse judgments or outcomes related to legal matters, as well as ranges of probable losses.

MIT Licensing Agreement

In December 2007, the Company entered into a license agreement with MIT pursuant to which the Company acquired an exclusive world-wide license to develop and commercialize technology related to self-assembling peptide compositions, and methods of making and using such compositions in medical and non-medical applications, including claims that cover the Company's proposed products and methods of use thereof. The license also provides non-exclusive rights to additional intellectual property in the fields that cover the Company's proposed products and methods of use thereof, in order to provide freedom to operate. The license provides the Company a right to sublicense the exclusively licensed intellectual property. The Company has not sublicensed the exclusively licensed intellectual property to any party for any field.

In exchange for the licenses granted in the agreement, the Company has paid MIT license maintenance fees and patent prosecution costs. The Company paid license maintenance fees of $50,000 to MIT in the fiscal years ended September 30, 2022 and 2021. For the years ended September 30, 2022 and 2021, the annual MIT license maintenance fees of $50,000 are included in accrued expenses and other liabilities on the Consolidated Balance Sheets. The license maintenance fees and patent prosecution costs cover the contract year beginning January 1 through December 31. Annual license maintenance obligations extend through the life of the patents. In addition, MIT is entitled to royalties on applicable future product sales, if any. The annual payments may be applied towards royalties payable to MIT for that year for product sales.

The Company is obligated to indemnify MIT and related parties from losses arising from claims relating to the exercise of any rights granted to the Company under the license, with certain exceptions. The maximum potential amount of future payments the Company could be required to make under this provision is unlimited. The Company considers there to be a low performance risk as of September 30, 2022.

The agreement expires upon the expiration or abandonment of all patents that are issued and licensed to the Company by MIT under such agreement. The Company expects that patents will be issued from presently pending U.S. and foreign patent applications. Any such patent will have a term of 20 years from the filing date of the underlying application. MIT may terminate the agreement immediately, if the Company ceases to carry on its business, if any nonpayment by the Company is not cured or the Company commits a material breach that is not cured. The Company may terminate the agreement for any reason upon six months' notice to MIT.

Leases

The Company's corporate offices are located in Framingham, MA. During July 2017, we entered into athree-year operating lease commencing October 1, 2017 and ending on September 30, 2020 at our current location, pursuant to which we are obliged to pay annual rent of $38,400 during the first year, $39,600 during the second year and $42,000 during the third year. During August 2020, we extended the lease through September 30, 2021 at our current location pursuant to which we are obligated to pay annual rent of $42,000. During October 2021 we extended the lease for six months through March 31, 2022 at our current location pursuant to which we are obligated to pay $21,000. As of April 1, 2022 we have converted our current lease to a monthly rental and are obligated to pay $3,500 per month. As of September 30, 2022 and 2021, there was no ROU asset or liability. We believe our present offices are suitable for our current and planned near-term operations.

16. RISKS AND UNCERTAINTIES - COVID-19 AND GEOPOLITICAL CONFLICTS

The Company sources its materials and services for its products and product candidates from facilities in areas impacted or which may be impacted by the outbreak of the COVID-19 or geopolitical conflicts. The Company’s ability to obtain future inventory may be impacted, therefore potentially affecting the Company’s future revenue stream. In addition, the Company has historically and principally funded its operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of Common Stock and warrants which may also be impacted by economic conditions beyond the Company’s control as well as uncertainties resulting from geopolitical conflicts, including the recent war in Ukraine. The extent to which the COVID-19 and recent events in Ukraine will impact the global economy and the Company is uncertain and cannot be reasonably measured.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Balance Sheets
As of June 30, 2023 (Unaudited) and September 30, 2022

	June 30, 2023	September 30, 2022
ASSETS		
Current assets:		
Cash	$ 86,542	$ 746,940
Inventory	1,382,938	1,414,848
Prepaid expenses and other current assets	90,538	436,407
Total current assets	1,560,018	2,598,195
Long-term assets:		
Property and equipment, net	728	2,044
Other assets	3,500	3,500
Total long-term assets	4,228	5,544
Total assets	$ 1,564,246	$ 2,603,739
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 2,471,162	$ 1,328,000
Shareholder advances	50,000	-
Shareholder and Third-Party Advances related to Bridge Financing	690,015	-
Accrued expenses and other liabilities	200,522	318,505
Insurance premium financing	-	247,933
Current Portion of Series 2 convertible note	550,000	550,000
Current Portion of Series 1 convertible note	450,000	-
Current Portion of Unsecured convertible notes	1,401,618	-
Current Portion of 2022 Notes	2,945,448	-
Current Portion of Accrued Interest	820,509	127,781
Current portion of derivative liability	-	748,275
Total current liabilities	9,579,274	3,320,494
Long-term liabilities:		
Unsecured convertible notes	-	699,781
Series 2 convertible notes	-	450,000
2022 Notes	-	1,662,492
Accrued interest	-	204,575
Derivative liability	-	459,200
Total long-term liabilities	-	3,476,048
Total liabilities	9,579,274	6,796,542
Commitments and contingencies		
Stockholders' deficit:		
Common stock, $0.001 par value, 12,000,000 and 500,000 shares authorized as of June 30, 2023 and September 30, 2022, 160,657 and 156,592 shares issued as of June 30, 2023 and September 30, 2022 and160,657 and 156,179shares outstanding as of June 30, 2023 and September 30, 2022, each respectively	161	157
Additional paid-in capital	51,583,224	50,879,813
Accumulated deficit	(59,598,413)	(55,072,773)
Total stockholders' deficit	(8,015,028)	(4,192,803)
Total liabilities and stockholders' deficit	$ 1,564,246	$ 2,603,739

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Operations (Unaudited)
For the Three and Nine Months Ended June 30, 2023 and 2022

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Nine Months Ended June 30, 2023	Nine Months Ended June 30, 2022
Revenue	$ 13,293	$ 6,261	$ 36,207	$ 14,086
Operating expenses:				
Cost of revenues	18,529	17,140	54,882	51,363
Selling, general and administrative expenses	870,053	836,215	3,225,753	3,308,227
Research and development expenses	139,048	159,846	471,135	922,120
Total costs and expenses	1,027,630	1,013,201	3,751,770	4,281,710
Loss from operations	(1,014,337)	(1,006,940)	(3,715,563)	(4,267,624)
Other income (expense):				
Interest expense	(808,770)	(39,890)	(1,968,274)	(119,671)
Gain on extinguishment of derivative liabilities	-	-	1,158,197	-
Expiration of derivative liability/Series F warrant	-	-	-	1,000,000
Total other income (expense)	(808,770)	(39,890)	(810,077)	880,329
Net loss	$ (1,823,107)	$ (1,046,830)	$ (4,525,640)	$ (3,387,295)
Loss per share - basic and diluted				
Net loss per common share - basic and diluted	$ (11.39)	$ (7.07)	$ (28.61)	$ (22.88)
Weighted common shares - basic and diluted	159,996	148,092	158,168	148,033

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Changes in Stockholders' Deficit (Unaudited)
For the Three and Nine Months Ended June 30, 2023 and 2022

Three Months Ended June 30, 2023	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at March 31, 2023	159,331	$ 159	$ 51,389,059	$ (57,775,306)	(6,386,088)
Net loss	-	-	-	(1,823,107)	(1,823,107)
Stock-based compensation expense	-	-	41,259	-	41,259
Issuance of common stock and warrants, net of financing costs	1,326	2	152,906	-	152,908
Exchange of warrants into common stock	-	-	-	-	-
Balance at June 30, 2023	160,657	$ 161	$ 51,583,224	$ (59,598,413)	$ (8,015,028)

Nine Months Ended June 30, 2023	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2022	156,592	$ 156	$ 50,879,814	$ (55,072,773)	(4,192,803)
Net loss	-	-	-	(4,525,640)	(4,525,640)
Vesting of restricted stock	31	-	-	-	-
Stock-based compensation expense	-	-	213,809	-	213,809
Issuance of common stock and warrants, net of financing costs	2,526	3	440,325	-	440,328
Exchange of warrants into common stock	1,508	1	49,277	-	49,278
Balance at June 30, 2023	160,657	$ 161	$ 51,583,224	$ (59,598,413)	$ (8,015,028)

Three Months Ended June 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balance at March 31, 2022	148,075	$ 148	$ 49,077,812	$ (52,137,384)	$ (3,059,424)
Net loss	-	-	-	(1,046,830)	(1,046,830)
Vesting of restricted stock	47	-	-	-	-
Stock-based compensation expense	-	-	90,755	-	90,755
Balance at June 30, 2022	148,122	$ 148	$ 49,168,567	$ (53,184,214)	$ (4,015,499)

Nine Months Ended June 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2021	147,950	$ 148	$ 48,771,097	$ (49,796,919)	$ (1,025,674)
Net loss	-	-	-	(3,387,295)	(3,387,295)
Vesting of restricted stock	172	-	-	-	-
Stock-based compensation expense	-	-	397,470	-	397,470
Balance at June 30, 2022	148,122	$ 148	$ 49,168,567	$ (53,184,214)	$ (4,015,499)

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Cash Flows (Unaudited)
For the Nine Months Ended June 30, 2023 and 2022

	Nine Months Ended June 30, 2023	Nine Months Ended June 30, 2022
Cash flows from operating activities:		
Net loss	$ (4,525,640)	$ (3,387,295)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation	1,316	2,397
Stock-based compensation	213,809	397,470
Decrease to fair value of derivative	-	(1,000,000)
Gain on extinguishment of derivative liabilities	(1,158,197)	-
Accretion of discount and debt issuance costs on 2022 Notes and Unsecured convertible notes	1,480,121	-
Inventory obsolescence charge	-	248,073
Changes in operating assets and liabilities:		
(Increase) decrease in:		
Inventory	31,910	(582,572)
Prepaid expenses and other current assets	345,869	223,854
Increase (decrease) in:		
Accounts payable	1,143,162	1,288,130
Accrued interest	488,153	119,671
Accrued expenses and other current liabilities	(167,983)	(96,370)
Net cash used in operating activities	(2,147,480)	(2,786,642)
Cash flows from financing activities:		
Repayment of insurance premium financing	(247,933)	-
Proceeds from shareholder advances	1,228,015	575,000
Proceeds from Unsecured convertible notes	507,000	-
Net cash provided by financing activities	1,487,082	575,000
Net decrease in cash	(660,398)	(2,211,642)
Cash, beginning of year	746,940	2,266,639
Cash, end of period	$ 86,542	$ 54,997
Non-cash financing activities:		
Exchange of Series G and Series H warrants for common stock	$ 49,278	$ -
Issuance of restricted stock	$ 3,019	$ 29,831
Fair value of warrants issued - second close	$ 256,439	$ -
Fair value of inducement shares issued - second close	$ 25,840	$ -
Fair value of placement agent warrants - second close	$ 28,093	$ -
Fair value of warrants issued - third close	$ 137,252	$ -
Fair value of inducement shares issued - third close	$ 15,656	$ -
Conversion of shareholder advance into unsecured convertible note	$ 488,000	$ -

The accompanying notes are an integral part of these consolidated financial statements.

ARCH THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. BASIS OF PRESENTATION AND DESCRIPTION OF BUSINESS

Organization and Description of Business

Arch Therapeutics, Inc. (together with its subsidiary, the "*Company*" or "*Arch*") was incorporated under the laws of the State of Nevada on September 16, 2009, under the name "Almah, Inc.". Effective June 26, 2013, the Company completed a merger (the "*Merger*") with Arch Biosurgery, Inc. (formerly known as Arch Therapeutics, Inc.), a Massachusetts corporation ("*ABS*"), and Arch Acquisition Corporation ("*Merger Sub*"), the Company's wholly owned subsidiary formed for the purpose of the transaction, pursuant to which Merger Sub merged with and into ABS and ABS thereby became the wholly owned subsidiary of the Company. As a result of the acquisition of ABS, the Company abandoned its prior business plan and changed its operations to the business of a biotechnology company. The Company's principal offices are located in Framingham, Massachusetts.

ABS was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006, as Clear Nano Solutions, Inc. On April 7, 2008, ABS changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. Effective upon the closing of the Merger, ABS changed its name from Arch Therapeutics, Inc. to Arch Biosurgery, Inc.

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5® Advanced Wound System, and has devoted substantially all of the Company's operational effort to the research, development and regulatory programs necessary to turn the Company's core technology into commercial products. To date, the Company has principally raised capital through the issuance of convertible debt, and the issuance of units consisting of its common stock, $0.001 par value per share ("*Common Stock*") and warrants to purchase Common Stock ("*warrants*").

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of its potential future products. However, there can be no assurance that the Company will be successful in securing additional resources when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Reverse Stock Split

On July 18, 2023, the board of directors of the Company (the "Board") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "Amendment") to provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company executed a written consent approving the Amendment. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering. Although the Reverse Split is not yet effective, in order to achieve a consistent presentation of share data and per share information throughout the entire prospectus, all the relevant information relating to numbers of shares and per share information contained in these financial statements has been retrospectively adjusted to reflect the Reverse Split for all periods presented on the assumption that a 1-for-8 reverse stock split would have become effective since the earliest date covered by these consolidated financial statements.

No fractional shares will be issued in connection with the Reverse Split. We will round up any fractional shares resulting from the Reverse Split to the nearest whole share. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying unaudited interim consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America ("*US GAAP*"). The interim consolidated financial statements included herein are unaudited; however, they contain all normal recurring accruals and adjustments that, in the opinion of management, are necessary to present fairly the Company's results of operations and financial position for the interim periods.

Although the Company believes that the disclosures in these unaudited interim consolidated financial statements are adequate to make the information presented not misleading, certain information normally included in the footnotes prepared in accordance with US GAAP has been omitted as permitted by the rules and regulations of the Securities and Exchange Commission ("*SEC*"). These unaudited interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2022, filed with the SEC on December 28, 2022 (the "*Annual Report*").

For a complete summary of the Company's significant accounting policies, please refer to Note 2 included in Item 8 of the Company's Annual Report. There have been no material changes to the Company's significant accounting policies during the nine months ended June 30, 2023.

Basis of Presentation

The consolidated financial statements include the accounts of Arch Therapeutics, Inc. and its wholly owned subsidiary, Arch Biosurgery, Inc., a biotechnology company. All intercompany accounts and transactions have been eliminated in consolidation.

On January 6, 2023, the directors of the Company authorized a reverse share split of the issued and outstanding Common Shares in a ratio of1:200, effective January 17, 2023 (the "*Reverse Share Split*"). All information included in these consolidated financial statements has been adjusted, on a retrospective basis, to reflect the Reverse Share Split, unless otherwise stated. All outstanding securities entitling their holders to purchase shares of Common Stock or acquire shares of Common Stock, including stock options, restricted stock units, and warrants, were adjusted as a result of the Reverse Stock Split, as required by the terms of those securities.

Use of Estimates

Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenue and expense during the reporting periods. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. The Company had no cash equivalents as of June 30, 2023 and September 30, 2022.

Inventories

Inventories are stated at the lower of cost or net realizable value. The cost of inventories comprises expenditures incurred in acquiring the inventories, the cost of conversion and other costs incurred in bringing them to their existing location and condition. The cost of raw materials, goods-in-process and finished goods are determined on a First in First out (FiFo) basis. When determining net realizable value, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash. The Company maintains its cash in bank deposits accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to any significant credit risk on cash.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful life of the related asset. Upon sale or retirement, the cost and accumulated depreciation are eliminated from their respective accounts, and the resulting gain or loss is included in income or loss for the period. Repair and maintenance expenditures are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment when circumstances indicate the carrying value of an asset may not be recoverable in accordance with the Financial Accounting Standards Board ("*FASB*") Accounting Standards Codification ("*ASC*") Topic 360, *Property, Plant and Equipment*. For assets that are to be held and used, impairment is recognized when the estimated undiscounted cash flows associated with the asset or group of assets is less than their carrying value. If impairment exists, an adjustment is made to write the asset down to its fair value, and a loss is recorded as the difference between the carrying value and fair value. Fair values are determined based on quoted market values, discounted cash flows or internal and external appraisals, as applicable. Assets to be disposed of are carried at the lower of carrying value or estimated net realizable value. For the nine months ended June 30, 2023 and 2022 there has not been any impairment of long-lived assets.

Leases

The Company determines if an arrangement is a lease at its inception. Operating lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. The Company's lease does not provide an implicit interest rate, the Company used an incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Income Taxes

In accordance with FASB ASC Topic 740, *Income Taxes*, the Company recognizes deferred tax assets and liabilities for the expected future tax consequences or events that have been included in the Company's consolidated financial statements and/or tax returns. Deferred tax assets and liabilities are based upon the differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions when management determines that it is more likely than not that a loss will be incurred related to these matters and the amount of the loss is reasonably determinable.

Revenue

In accordance with FASB ASC Topic 606, *Revenue Recognition*, the Company recognizes revenue through a five-step process: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) a performance obligation is satisfied.

The Company's source of revenue is product sales. Contracts with customers contain a single performance obligation and the Company recognizes revenue from product sales when the Company has satisfied our performance obligation by transferring control of the product to the customers. Control of the product transfers to the customer upon shipment from the Company's third-party warehouse. In circumstances where the transaction price is not able to be determined at the time of shipment, the Company does not recognize revenue or any receivable amount until such time that the final transaction price is established.

Cost of Revenue

Cost of revenue includes product costs, warehousing, overhead allocation and royalty expense.

Research and Development

The Company expenses internal and external research and development costs, including costs of funded research and development arrangements, in the period incurred.

Accounting for Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with the guidance of FASB ASC Topic 718, *Compensation-Stock Compensation* ("*ASC 718*"), which requires all share-based payments be recognized in the consolidated financial statements based on their fair values. In accordance with ASC 718, the Company has elected to use the Black-Scholes Option Pricing Model (the "*Black-Scholes Model*") to determine the fair value of options granted and recognizes the compensation cost of share-based awards on a straight-line basis over the vesting period of the award.

The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by the fair value of the Common Stock and a number of other assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The expected life for awards uses the simplified method for all "plain vanilla" options, as defined in ASC 718-10-S99, and the contractual term for all other employee and non-employee awards. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of the Company's awards. The dividend yield assumption is based on history and the expectation of paying no dividends. Stock-based compensation expense, when recognized in the consolidated financial statements, is based on awards that are ultimately expected to vest.

Fair Value Measurements

The Company measures both financial and nonfinancial assets and liabilities in accordance with FASB ASC Topic 820,*Fair Value Measurements and Disclosures*, including those that are recognized or disclosed in the consolidated financial statements at fair value on a recurring basis. The standard created a fair value hierarchy which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs that reflect the Company's own views about the assumptions market participants would use in pricing the asset or liability.

At June 30, 2023 and September 30, 2022, the carrying amounts of cash, accounts payables and accrued expense and other liabilities approximate fair value because of their short-term nature. The carrying amounts for the Series Convertible Notes (See Note 12), 2022 Notes (see Note 11), and Second Notes (see Note 11), and Third Notes (see Note 11) approximate fair value because borrowing rates and terms are similar to comparable market participants.

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with FASB ASC Topic 815, *Derivatives and Hedging* ("*ASC 815*"). Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate. During the nine months ended June 30, 2023, $1,158,197 was recorded to gain on extinguishment of derivative liability for the exchange of the Series G warrants and Series H warrants and $49,278 was recorded as part of shareholder's deficit.

Complex Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks. The Company evaluates its financial instruments, including warrants, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. The Company values its derivatives using the Black-Scholes option-pricing model or other acceptable valuation models, including Monte-Carlo simulations. Derivative instruments are valued at inception, upon events such as an exercise of the underlying financial instrument, and at subsequent reporting periods. The classification of derivative instruments, including whether such instruments should be recorded as liabilities, is re-assessed at the end of each reporting period.

The Company reviews the terms of debt instruments, equity instruments, and other financing arrangements to determine whether there are embedded derivative features, including embedded conversion options that are required to be bifurcated and accounted for separately as a derivative financial instrument. Additionally, in connection with the issuance of financing instruments, the Company may issue freestanding options and warrants, including options or warrants to non-employees in exchange for consulting or other services performed.

The Company accounts for its common stock warrants in accordance with Accounting Standards Codification ("ASC") 815,*Derivatives and Hedging* ("ASC 815"). Based upon the provisions of ASC 815, the Company accounts for common stock warrants as liabilities if the warrant requires net cash settlement or gives the holder the option of net cash settlement, or it fails the equity classification criteria. The Company accounts for common stock warrants as equity if the contract requires physical settlement or net physical settlement or if the Company has the option of physical settlement or net physical settlement and the warrants meet the requirements to be classified as equity. Common stock warrants classified as liabilities are initially recorded at fair value on the grant date and remeasured at fair value each balance sheet date with the offset adjustments recorded in change in fair value of warrant liability within the consolidated statements of operations. Common stock warrants classified as equity are initially measured at fair value on the grant date and are not subsequently remeasured.

Financial Statement Reclassification

Certain balances in the prior year consolidated financial statements have been reclassified for comparison purposes to conform to the presentation in the current period consolidated financial statements. During the nine-month period ended June 30, 2023, the Company reclassified the carrying amount of Exchanged Notes of $699,781 (see Note 12) that were previously included in the 2022 Notes payable to Unsecured convertible notes.

Subsequent Events

The Company evaluated all events or transactions through August 11, 2023, the date which these consolidated financial statements were issued. See note 15 for matters deemed to be subsequent events.

Going Concern Basis of Accounting

As reflected in the consolidated financial statements, the Company has an accumulated deficit as of June 30, 2023, has suffered significant net losses and negative cash flows from operations, only recently commenced generating limited operating revenues, and has limited working capital. The continuation of the Company's business as a going concern is dependent upon raising additional capital, the ability to successfully market and sell its product and eventually attaining and maintaining profitable operations. In particular, as of June 30, 2023, the Company will be required to raise additional capital, obtain alternative means of financial support, or both, in order to continue to fund operations, and therefore there is substantial doubt about the Company's ability to continue as a going concern. The Company expects to incur substantial expenses into the foreseeable future for the research, development and commercialization of its current and potential products. In addition, the Company will require additional financing in order to seek to license or acquire new assets, research and develop any potential patents and the related compounds, and obtain any further intellectual property that the Company may seek to acquire. Finally, some of our product candidates or the materials contained therein (such as the Active Pharmaceutical Ingredients for our AC5® product line), are manufactured from facilities in areas impacted by the outbreak of the COVID-19, which could result in shortages due to ongoing efforts to address the outbreak. Historically, the Company has principally funded operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of common stock and warrants. Provisions in the Securities Purchase Agreements that the Company entered into on July 6, 2022 ("*2022 SPA*"), and July 7, 2023 (the "2023 SPA") restrict the Company's ability to effect or enter into an agreement to effect any issuance by the Company or its subsidiary of Common Stock or securities convertible, exercisable or exchangeable for Common Stock (or a combination of units thereof) with respect to (i) any variable rate debt transactions (as defined in the 2022 SPA), for a period of six months after the date of the 2022 SPA, involving any transaction where the conversion or exercise of the security issued by the Company varies based on the market price of the Common Stock that does not contain a floor price that is more than 50% of the closing price of the Common Stock on the trading day immediately prior to the date of the 2022 SPA, and (ii) any Variable Rate Transaction (as defined in the 2023 SPA) including, but not limited to, an equity line of credit or "At-the-Market" financing facility until twelve (12) months after the closing date of the 2023 SPA. Furthermore, initially, under the 2022 SPA, we were required to complete an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by February 15, 2023. This deadline has been subsequently extended on numerous occasions. Most recently, on July 31, 2023, the Company secured waivers from the required holders of the 2022 Notes, Second Notes and Third Notes to extend the deadline to complete an Uplisting Transaction to August 31, 2023. See Note 11 for more information regarding the 2022 Convertible Note Offering including the terms of the 2022 Warrants and 2022 Placement Agent Warrants, as well as for more information regarding the Amendment No. 1 to the 2022 SPA, and Amendment No. 2 to the 2022 SPA.

The 2023 SPA contains certain restrictions on our ability to conduct subsequent sales of any future securities (See Note 15). The continued spread of COVID-19 and uncertain market conditions may also limit the Company's ability to access capital. If the Company is unable to obtain adequate capital, the Company may be required to reduce the scope, delay, or eliminate some or all of its planned activities. These conditions, in the aggregate, raise substantial doubt as to the Company's ability to continue as a going concern.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The consolidated financial statements do not include any adjustments that might result from this uncertainty.

3. PROPERTY AND EQUIPMENT

At June 30, 2023 and September 30, 2022, property and equipment consisted of:

	Estimated Useful Life (in years)	June 30, 2023	September 30, 2022
Furniture and fixtures	5	$ 9,357	$ 9,357
Leasehold improvements	Life of Lease	8,983	8,983
Computer equipment	3	14,416	14,416
Lab equipment	5	1,000	1,000
		33,756	33,756
Less - accumulated depreciation		33,028	31,712
Property and equipment, net		$ 728	$ 2,044

For the three months ended June 30, 2023 and 2022, depreciation expense recorded was $273 and $799, respectively. For the nine months ended June 30, 2023 and 2022, depreciation expense recorded was $1,316 and $2,397, respectively.

4. INVENTORIES

Inventories consist of the following:

	June 30, 2023	September 30, 2022
Finished Goods	$ 56,828	$ 9,063
Goods-in-process	1,326,110	1,405,785
Total	$ 1,382,938	$ 1,414,848

The Company capitalizes inventory that has been produced for commercial sale and has been determined to have a probable future economic benefit. The determination of whether or not the inventory has a future economic benefit requires estimates by management. To the extent that inventory is expected to expire prior to being sold or used for research and development or used for samples, the Company will write down the value of inventory. In evaluating the net realizable value of the inventory, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

5. INSURANCE PREMIUM FINANCING

In July 2022, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed was approximately $354,000 and incurred interest at a rate of 2.99%. The Company made monthly payments of approximately $35,000 through April 2023. The outstanding balance as of June 30, 2023 and September 30, 2022 was approximately $0 and $248,000, respectively. As of June 30, 2023, the Company had not entered into a new finance agreement with First Insurance Funding, or any other similar provider.

6. STOCK-BASED COMPENSATION

2013 Stock Incentive Plan

On June 18, 2013, the Company established the 2013 Stock Incentive Plan (the "*2013 Plan*"). Under the 2013 Plan, as of September 30, 2022, a maximum number of 21,322 shares of the Company's authorized and available common stock could be issued in the form of options, stock appreciation rights, sales or bonuses of restricted stock, restricted stock units or dividend equivalent rights, and an award may consist of one such security or benefit, or two or more of them in any combination or alternative. The 2013 Plan provides that on the first business day of each fiscal year commencing with fiscal year 2014, the number of shares of our common stock reserved for issuance under the 2013 Plan for all awards except for incentive stock option awards will be subject to increase by an amount equal to the lesser of (A) 1,875 Shares, (B) four (4) percent of the number of shares outstanding on the last day of the immediately preceding fiscal year of the Company, or (C) such lesser number of shares as determined by the Company's Board of Directors (the "*Board*"). The exercise price of each option shall be the fair value as determined in good faith by the Board at the time each option is granted. On October 1, 2022, the aggregate number of authorized shares under the Plan was further increased by 1,875 shares to a total of 23,197 shares. On June 18, 2023, the 2013 Stock Incentive Plan expired.

The exercise price of each option is equal to the closing price of a share of the Company's Common Stock on the date of grant.

Share-Based Awards

During the nine months ended June 30, 2023, the Company awarded 2,610 options to employees and directors and 454 options to consultants to purchase shares of Common Stock under the 2013 Plan.

Share-based compensation expense for awards granted during the nine months ended June 30, 2023 was based on the grant date fair value estimated using the Black-Scholes Model.

Common Stock Options

Stock compensation activity under the 2013 Plan for the nine months ended June 30, 2023 follows:

	Option Shares Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at September 30, 2022	12,329	$ 416.00	1.36	$ 16,900
Awarded	3,063	$ 64.00		
Forfeited/Cancelled	(2,388)	$ 560.00		
Outstanding at June 30, 2023	13,004	$ 312.00	5.72	-
Vested at June 30, 2023	9,927	$ 384.00	4.85	-
Vested and expected to vest at June 30, 2023	13,041	$ 312.00	5.72	-

On June 18, 2023, the 2013 Stock Incentive Plan expired. Thereforeno shares are available for future grants under the 2013 Plan as of June 30, 2023.

Share-based compensation expense recorded in the Company's Consolidated Statements of Operations for the three months ended June 30, 2023 and 2022 resulting from options awarded to the Company's employees, directors and consultants was approximately $41,000 and $81,000, respectively. Of this amount, during the three months ended June 30, 2023 and 2022, $7,000 and $29,000, respectively, were recorded as research and development expense, and $34,000 and $52,000, respectively were recorded as general and administrative expense in the Company's Consolidated Statements of Operations. Share-based compensation expense recorded in the Company's Consolidated Statements of Operations for the nine months ended June 30, 2023 and 2022 resulting from options awarded to the Company's employees, directors and consultants was approximately $211,000 and $367,000, respectively. Of this amount, during the nine months ended June 30, 2023 and 2022, $55,000 and $123,000, respectively, were recorded as research and development expense, and $156,000 and $245,000, respectively were recorded as general and administrative expense in the Company's Consolidated Statements of Operations.

During the nine months ended June 30, 2023 and 2022, no options awarded were exercised.

As of June 30, 2023, there is approximately $200,000 of unrecognized compensation expense related to unvested stock-based compensation arrangements granted under the 2013 Plan. That cost is expected to be recognized over a weighted average period of 2.11 years.

Restricted Stock

Restricted stock activity under the 2013 Plan for the three months ended June 30, 2023 and 2022, in shares, follows:

	Three months Ended	
	June 30, 2023	June 30, 2022
Non Vested at March 31, 2023 and 2022	-	157
Vested	-	(47)
Non Vested at June 30, 2023 and 2022	-	110

The weighted grant date fair value average of the restricted stock for the three months ended June 30, 2023 and 2022 follows:

	Three months Ended	
	June 30, 2023	June 30, 2022
Non Vested at March 31, 2023 and 2022	$ -	$ 160.00
Vested	-	(160.00)
Non Vested at June 30, 2023 and 2022	$ -	$ 160.00

Restricted stock activity under the 2013 Plan for the nine months ended June 30, 2023 and 2022, in shares, follows:

	Nine months Ended	
	June 30, 2023	June 30, 2022
Non Vested at September 30, 2022 and 2021	32	282
Vested	(32)	(172)
Non Vested at June 30, 2023 and 2022	-	110

The weighted grant date fair value average of the restricted stock for the nine months ended June 30, 2023 and 2022 follows:

	Nine months Ended	
	June 30, 2023	June 30, 2022
Non Vested at September 30, 2022 and 2021	$ 144.00	$ 160.00
Vested	(144.00)	(160.00)
Non Vested at June 30, 2023 and 2022	$ -	$ 160.00

For the three months ended June 30, 2023 and 2022, compensation expense recorded for the restricted stock awards was approximately $0 and $10,000, respectively. For the nine months ended June 30, 2023 and 2022, compensation expense recorded for the restricted stock awards was approximately $3,000 and $30,000, respectively.

7. REGISTERED DIRECT OFFERINGS

On September 30, 2016, the Company filed a registration statement with the SEC utilizing a "shelf" registration process, which was subsequently declared effective by the SEC on October 20, 2016 (such registration statement, the "*Shelf Registration Statement*"). Under the Shelf Registration Statement, the Company may offer and sell any combination of its Common Stock, warrants, debt securities, subscription rights, and/or units comprised of the foregoing to raise up to $50,000,000 in gross proceeds.

On February 20, 2017, the Company entered into a Securities Purchase Agreement (the "*2017* SPA") with six accredited investors (collectively, the "*2017 Investors*") providing for the issuance and sale by the Company to the 2017 Investors of an aggregate of 6,355 units at a purchase price of $960.00 per unit in a registered offering (the "*2017 Financing*"). The securities comprising the units sold in the 2017 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant equal to 55% of the shares of Common Stock at an exercise price of $1,200.00 per share ("*Series F Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series F Warrant subject to certain restrictions on exercise (the "*2017 Warrants*") and the shares issuable upon exercise of the 2017 Warrants (the "*2017 Warrant Shares*").

On June 28, 2018, the Company entered into a Securities Purchase Agreement ("*2018 SPA*") with eight accredited investors (collectively, the "*2018 Investors*") providing for the issuance and sale by the Company to the 2018 Investors of an aggregate of 5,669 units at a purchase price of $800.00 per unit in a registered offering ("*2018 Financing*"). The securities comprising the units sold in the 2018 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase up to a number of shares of the Company's Common Stock equal to 75% of the shares of Common Stock at an exercise price of $1,120.00 per share ("*Series G Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series G Warrant subject to certain restrictions on exercise (the "*2018 Warrants*") and the shares issuable upon exercise of the 2018 Warrants (the "*2018 Warrant Shares*").

On May 12, 2019, the Company entered into a Securities Purchase Agreement ("*2019 SPA*") with five accredited investors (collectively, the "*2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of 5,385 units at a purchase price of $520.00 per unit in a registered offering ("*2019 Financing*"). The securities comprising the units sold in the 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $640.00 per share ("*Series H Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series H Warrant subject to certain restrictions on exercise (the "*2019 Warrants*") and the shares issuable upon exercise of the *2019* Warrants (the "*2019 Warrant Shares*").

On March 10, 2023, the Company entered into exchange agreements (the "Exchange Agreements") with each holder (the "Warrantholders") of the Company's outstanding Series G Warrants to purchase shares of the Company's common stock, par value $ 0.001 per share (the "Common Stock") at an exercise price of $1,120.00 per share (the "Series G Warrants") and the Company's outstanding Series H Warrants to purchase shares of Common Stock at an exercise price of $ 640.00 per share (the "Series H Warrants" and, together with the Series G Warrants, the "Warrants"). Pursuant to the Exchange Agreements, the Warrantholders exchanged 4,252 Series G Warrants for 426 shares of Common Stock and 5,385 Series H Warrants for 1,078 shares of Common Stock. All 3,495 remaining Series F Warrants expired during the fiscal year ended September 30, 2022.

8. Derivative Liabilities

The Company accounted for the Series F Warrants, Series G Warrants and the Series H Warrants in accordance with ASC 815-10. Since the Company was required to purchase its Series F Warrants, Series G Warrants and Series H Warrants for an amount of cash equal to $ 288.00, $176.00 and $85.28, respectively, for each share of Common Stock (the "Minimum Value") they are recorded as liabilities at the greater of the Minimum Value or fair value. They are marked to market each reporting period through the Consolidated Statement of Operations.

On the respective closing dates of June 28, 2018 and May 12, 2019, respectively, the derivative liabilities related to the Series G Warrants and Series H Warrants were recorded at an aggregate fair value of $1,628,113. Given that the fair value of the derivative liabilities was less than the net proceeds, the remaining proceeds were allocated to Common Stock and additional paid-in-capital.

On March 10, 2023, Arch Therapeutics, Inc. entered into exchange agreements (the "Exchange Agreements") with each holder (the "Warrantholders") of the Company's outstanding Series G Warrants to purchase shares of the Company's common stock, par value $ 0.001 per share at an exercise price of $1,120.00 per share and the Company's outstanding Series H Warrants to purchase shares of Common Stock at an exercise price of $ 640.00 per share. Pursuant to the Exchange Agreements, the Warrantholders exchanged 4,252 Series G Warrants for 426 shares of Common Stock and 5,385 Series H Warrants for 1,078 shares of Common Stock.

During the three and nine months ended June 30, 2023, $0 and $1,158,197, respectively was recorded to gain on extinguishment of derivative liability for the exchange of the Series G warrants and Series H warrants and $49,278 was recorded as part of shareholder's deficit. During the three and nine months ended June 30, 2022, $0 and $1,000,000, respectively was recorded to decrease the fair value of derivative liability related to the expired Series F warrants.

Fair Value Measurements Using Significant Unobservable Inputs - Nine Months Ended June 30, 2023

(Level 3)	**Series G**	**Series H**
Beginning balance at September 30, 2022	$ 748,275	$ 459,200
Exchange of warrants into common stock	(13,948)	(35,330)
Extinguishment of derivative liabilities	(734,327)	(423,870)
Ending balance at June 30, 2023	$ -	$ -

Fair Value Measurements Using Significant Unobservable Inputs - Nine Months Ended June 30, 2022

(Level 3)	**Series F**	**Series G**	**Series H**
Beginning balance at September 30, 2021	$ 1,000,000	$ 748,275	$ 459,200
Issuances	-	-	-
Adjustments to estimated fair value	-	-	-
Expiration of derivative liability	(1,000,000)	-	-
Ending balance at June 30, 2022	$ -	$ 748,275	$ 459,200

As of March 10, 2023 and September 30, 2022, the derivative liabilities were valued at the greater of their minimum value or by using the Black Scholes Model with the following assumptions.

As of March 10, 2023, the derivative liabilities are recorded at their minimum value.

	Series G	Series H
Closing price per share of Common Stock	$ 32.80	$ 32.80
Exercise price per share	$ 1,120.00	$ 640.00
Expected volatility	179.41%	141.03%
Risk-free interest rate	4.91%	4.75%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	0.24	1.31

As of September 30, 2022, the derivative liabilities are recorded at their minimum value.

	Series G	**Series H**
Closing price per share of Common Stock	$ 30.72	$ 30.72
Exercise price per share	$ 1,120.00	$ 640.00
Expected volatility	132.97%	122.50%
Risk-free interest rate	4.05%	4.14%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	0.69	1.57

9. OCTOBER 2019 REGISTERED DIRECT OFFERING

On October 16, 2019, the Company entered into a Securities Purchase Agreement *(the* "*October 2019 SPA*"*)* with seven accredited investors (collectively, the "*October 2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of8,929 units at a purchase price of $280.00 per unit in a registered offering ("*October 2019 Financing*"). The securities comprising the units sold in the October 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $352.00 per share ("*Series I Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series I Warrant subject to certain restrictions on exercise and the shares issuable upon exercise of the Series I Warrants (collectively, the "*October 2019 Warrant Shares*"). As of October 18, 2019, the Company recorded the8,929 shares as Common Stock. Pursuant to the Engagement Agreement (as defined below), the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 670 shares (the "Placement Agent Warrants"). The 2019 Placement Agent Warrants have substantially the same terms as the Series I Warrants, except that the exercise price of the Placement Agent Warrants is $350.00 per share and the term of the Placement Agent Warrants is five years.

The gross proceeds to the Company from the October 2019 Financing, which were received as of October 18, 2019, were approximately $2.5 million before deducting financing costs of approximately $333,000 which includes approximately $158,000 of placement fees. The number of shares of the Company's Common Stock into which each of the Series I Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series I Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

The Company engaged H.C. Wainwright as its exclusive institutional investor placement agent (the "*Placement Agent*") in connection with the October 2019 SPA pursuant to an engagement agreement dated as of October 10, 2019 (the "*2019 Engagement Agreement*"). In consideration for the services provided by the Placement Agent, the Placement Agent was entitled to receive cash fees ranging from 6.0% to 8.2% of the gross proceeds received by the Company, as well as reimbursement for all reasonable expenses incurred by it in connection with its engagement. The Company received gross proceeds of approximately $2.5 million in the aggregate, resulting in a fee of approximately $158,000.

During the three and nine months ended June 30, 2023 and 2022,no Series I Warrants or Placement Agent Warrants were exercised. As of June 30, 2023, up to 8,929 and 670 shares may be acquired upon the exercise of the Series I Warrants and Placement Agent Warrants, respectively.

Equity Value of Warrants

The Company accounted for the Series I Warrants and the Placement Agent Warrants relating to the aforementioned October 2019 Financing in accordance with ASC 815-40. Because the Series I Warrants and the Placement Agent Warrants are indexed to the Company's Common Stock, they are classified within stockholders' deficit in the accompanying consolidated financial statements.

10. 2021 REGISTERED DIRECT OFFERING

On February 11, 2021, the Company entered into a Securities Purchase Agreement (the "*2021 SPA*") with certain institutional and accredited investors (collectively, "*2021 Investors*") providing for the issuance and sale by the Company to the 2021 Investors of an aggregate of26,954 shares (the "Shares") of the Company's Common Stock, and warrants (the "*Series K Warrants*") to purchase an aggregate of20,215 shares (the "*Warrant Shares*") of Common Stock, at a combined offering price of $256.00 per share (the "*2021 Financing*"). The Series K Warrants have an exercise price of $272.00 per share and are exercisable for a period of5.5 years. The aggregate gross proceeds for the sale of the Shares and Series K Warrants were approximately $6.9 million, before deducting the Placement Agent's fees and expenses and other offering expenses payable by the Company, of approximately $700,000. Pursuant to an engagement agreement dated as of February 8, 2021 (the "*2021 Engagement Agreement*"), by and between the Company and the Placement Agent, the Company agreed to pay the Placement Agent cash fees equal to (i) 7.5% of the gross proceeds received by the Company from certain investors in the 2021 Financing, and (ii) 6.0% of the gross proceeds received by the Company from certain investors that had pre-existing relationships with the Company. In addition, the Placement Agent received a one-time non-accountable expense fee of $10,000, up to $50,000 for fees and expenses of legal counsel and other out-of-pocket expenses and $10,000 for clearing expenses. Pursuant to the 2021 Engagement Agreement, the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 7.5% of the aggregate number of Shares sold to the 2021 Investors, or warrants to purchase up to2,022 shares (the "2021 *Placement Agent Warrants*") of the Company's Common Stock. The 2021 Placement Agent 2 Warrants have substantially the same terms as the Series K Warrants, except that the exercise price of the 2021 Placement Agent Warrants is $320.00 per share. The 2021 Engagement Agreement contained indemnity and other customary provisions for transactions of this nature.

The 2021 SPA contained certain restrictions on the Company's ability to conduct subsequent sales of the Company's equity securities. In particular, we were prohibited from entering into or effecting a Variable Rate Transaction (as defined in the 2021 SPA) until February 11, 2022; provided, however, the Company may enter into and effect an at-the-market offering facility with the Placement Agent.

The number of shares of the Company's Common Stock into which each of the Series K Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series K Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

During the three and nine months ended June 30, 2023,no Series K Warrants or Placement Agent 2 Warrants were exercised. As of June 30, 2023, up to 20,215 and 2,022 shares may be acquired upon the exercise of the Series K Warrants and Placement Agent Warrants, respectively.

Common Stock

On February 17, 2021, the Closing Date of the 2021 Financing, the Company issued26,954 shares of Common Stock.

Equity Value of Warrants

The Company accounted for the Series K Warrants and the Placement Agent 2 Warrants relating to the aforementioned February 2021 Registered Direct Offering in accordance with ASC 815-40, *Derivatives and Hedging*. Because the Series K Warrants and the Placement Agent 2 Warrants are indexed to the Company's stock, they are classified within stockholders' deficit in the accompanying consolidated financial statements.

11. 2022 CONVERTIBLE NOTE OFFERING, SECOND NOTES OFFERING, AND THIRD NOTES OFFERING

On July 7, 2022, the Company announced that it had entered into a Securities Purchase Agreement (the "2022 SPA") with certain institutional and accredited individual investors (collectively, the "2022 Investors") providing for the issuance and sale by the Company to the 2022 Investors of (i) Senior Secured Convertible Promissory Notes (each a "2022 Note" and collectively, the "2022 Notes") in the aggregate principal amount of $4.23 million, which includes an aggregate $0.705 million original issue discount in respect of the 2022 Notes; (ii) warrants (the "2022 Warrants"), to purchase an aggregate of 53,195 shares (the "2022 Warrant Shares") of Common Stock; and (iii) 7,979 shares of Common Stock (the "2022 Inducement Shares") equal to15% of the principal amount of the 2022 Notes divided by the closing price of the Common Stock immediately prior to the Closing Date (as defined below). The 2022 Notes, 2022 Warrants and 2022 Inducement Shares were issued as part of a convertible note offering authorized by the Company's board of directors (the "2022 Convertible Note Offering"). The aggregate gross proceeds for the sale of the 2022 Notes, 2022 Warrants and 2022 Inducement Shares was approximately $3.5 million, before deducting debt issuance costs of $775,000 consisting of fair value of the placement agent's warrants of approximately $220,000 and other estimated fees and offering expenses payable by the Company of approximately $555,000. The closing of the sales of these securities under the 2022 SPA occurred on July 6, 2022 (the "2022 Closing Date").

On January 18, 2023, the Company entered into Amendment No. 1 to the 2022 SPA (the "Amendment" and, together with the 2022 SPA, the "Amended 2022 SPA"), with certain Investors in connection with the Second Closing of the 2022 Convertible Note Offering for the issuance and sale by the Company to such Investors of an aggregate of (i) Unsecured Convertible Promissory Notes (each a "Second Note" and collectively, the "Second Notes") in the aggregate principal amount of $636,000, which includes an aggregate $106,000 original issue discount in respect of the Second Notes; (ii) warrants (the "Second Warrants") to purchase an aggregate of15,996 shares (the "Second Warrant Shares") of Common Stock; and (iii) 1,200 shares of Common Stock (the "Second Inducement Shares"). The aggregate gross proceeds for the sale of the Second Notes, Second Warrants and Second Inducement Shares was approximately $530,000, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company of approximately $15,000. The second closing of the sales of these securities under the Amended 2022 SPA occurred on January 18, 2023 (the "Second Closing Date").

On May 15, 2023, the Company entered into Amendment No. 2 to the 2022 SPA related to the 2022 Convertible Note Offering (the "Second Amendment" and, together with the Amendment and the 2022 SPA, the "Second Amended 2022 SPA"), with an Investor in connection with the third closing of the 2022 Convertible Note Offering for the issuance and sale by the Company to an Investor of an aggregate of (i) Unsecured Convertible Promissory Notes (each a "Third Note" and collectively, the "Third Notes") in the aggregate principal amount of $702,720, which includes an aggregate $214,720 original issue discount in respect of the Third Notes; (ii) warrants (the "Third Warrants") to purchase an aggregate of 17,675 shares (the "Third Warrant Shares") of Common Stock; and (iii) 1,326 shares of Common Stock (the "Third Inducement Shares"). The aggregate gross proceeds for the sale of the Third Notes, Third Warrants and Third Inducement Shares was approximately $488,000, before deducting any estimated fees and offering expenses payable by the Company. The Company did not engage a placement agent in connection with the issuance of the Third Notes, Third Warrants, and Third Inducement Shares. The third closing of the sales of these securities under the Amended SPA occurred on May 15, 2023 (the "Third Closing Date").The 2022 Notes, the Second Notes and the Third Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the Closing Date until the 2022 Notes, Second Notes and Third Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes, Second Notes and Third Notes. Any amount of principal or interest on the 2022 Notes, the Second Notes and Third Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full.

The 2022 Notes, the Second Notes and the Third Notes are convertible into shares of Common Stock at the option of each holder of the 2022 Notes, the Second Notes, and the Third Notes from the date of issuance at $73.12 (the "Conversion Price") through the later of (i) January 6, 2024 (the "Maturity Date") or (ii) the date of payment of the Default Amount (as defined in the 2022 Notes); provided, however, certain 2022 Notes, Second Notes and Third Notes include a provision preventing such conversion if, as a result, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than 4.99% or 9.99% of the Common Stock (as applicable, the "Ownership Limitation") immediately after giving effect to the Conversion; and provided further, the holder, upon notice to us, may increase or decrease the Ownership Limitation; (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The Conversion Price is subject to adjustment as set forth in the 2022 Notes, Second Notes, and Third Notes.

The 2022 Notes, Second Notes and Third Notes contain customary events of default, which include, among other things, (i) the Company's failure to pay when due any principal or interest payment under the 2022 Notes, Second Notes, and Third Notes; (ii) our insolvency; (iii) delisting of the Company's Common Stock; (iv) the Company's breach of any material covenant or other material term or condition under the 2022 Notes, Second Notes and/or Third Notes; and (v) the Company's breach of any representations or warranties under the 2022 Notes, Second Notes and Third Notes which cannot be cured within five (5) days. Further, events of default under the 2022 Notes, Second Notes and Third Notes also include (i) the unavailability of Rule 144 on or after January 6, 2023; (ii) our failure to deliver the shares of Common Stock to the 2022 Notes, Second Notes, and/or Third Notes holder upon exercise by such holder of its conversion rights under the 2022 Notes, Second Notes, and/or Third Notes; (iii) our loss of the "bid" price for its Common Stock and/or a market and such loss is not cured during the specified cure periods; and (iv) our failure to complete an uplisting of our Common Stock to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by August 31, 2023 (as amended) (an "Uplist Transaction").

The 2022 Warrants, Second Warrants and Third Warrants (i) have an exercise price of $ 79.52 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrants, the Second Warrants and the Third Warrants if, as a result of the exercise of the 2022 Warrants, Second Warrants, and/or Third Warrants , the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. The holder, upon notice to us, may increase or decrease the Ownership Limitation; provided that (i) the Ownership Limitation may only be increased to a maximum of 9.99% of our Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The number of shares of Common Stock into which each of the 2022 Warrants, Second Warrants, and Third Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the 2022 Warrants, Second Warrants, and Third Warrants, including standard antidilution provisions, and adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In the event of a Fundamental Transaction (as defined in the 2022 Warrants, Second Warrants, and Third Warrants) holders of the 2022 Warrants, Second Warrants, and Third Warrants would be entitled to receive alternate consideration in connection with such Fundamental Transaction, but only to the extent that holders of our Common Stock were entitled to receive the same. Moreover, as long as the 2022 Notes, Second Notes, and Third Notes, and 2022 Warrants, Second Warrants, and Third Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes, Second Notes, and Third Notes, and the 2022 Warrants, Second Warrants, and Third Warrants of such more favorable terms, and to use best efforts to effect such terms in the 2022 Notes, Second Notes, and Third Notes, and the 2022 Warrants, Second Warrants, and Third Warrants. Finally, because of the Company's net loss position, the shares underlying the 2022 Notes, Second Notes, and Third Notes on an as converted basis are excluded from the calculation of basic and fully diluted earnings per share. Similarly, because of the Company's net loss position, there was no impact on the calculation of basic and fully diluted earnings per share related to the classification of the 2022 Warrants, Second Warrants, and Third Warrants as participating securities.

The Company retained a placement agent in connection with the private placement of $2.4 million of the 2022 Notes to the institutional investors. The Company paid the 2022 Placement Agent 10% of the gross proceeds received from certain institutional investors, or $240,000 and we also reimbursed the 2022 Placement Agent approximately $58,000 for non-accountable banking fees, legal fees and other expenses. In addition, we issued 2022 Placement Agent Warrants to purchase an aggregate of 3,939 shares of Common Stock. An additional $1.1 million was raised in connection with the placement of the private placement notes, which included certain accredited investors some of which were Board members and executive officers of the Company. Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the 2022 Notes. The investment made in the 2022 Notes made by the Board member and executive officers totaled $80,000.

The Company's agreement with the 2022 Placement Agent was still effective at the time of the private placement of $0.5 million of the Second Notes to certain institutional investors. Per the terms of a termination agreement dated February 21, 2023 by and between the Company and the 2022 Placement Agent (the "Placement Agent Termination Agreement"), the Company owes the 2022 Placement Agent 10% of the gross proceeds received from certain institutional investors, or $50,000, and, such amount was deferred until the Company completes an additional financing with gross proceeds of at least $1 million. In addition, per the Placement Agent Termination Agreement, we agreed to issue 2022 Placement Agent Warrants to purchase an aggregate of 821 shares of Common Stock.

In addition, as a part of the 2022 Convertible Note Offering, certain holders of the Company's 10% Series 2 Convertible Notes agreed to exchange their Series 2 Notes for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "Exchanged Notes"). The Exchanged Notes are convertible into 9,571 shares of Common Stock at a conversion price of $73.12. The holders of the Exchanged Notes did not receive warrants or inducement shares. In connection with the issuance of the Exchanged Notes, the holders of the Series 2 Notes that participated in the exchange, entered into a subordination agreement on July 6, 2022 (the "Closing Date") to subordinate their rights in respect of the Exchanged Notes to the rights of the Investors in respect of the 2022 Notes. As of July 7, 2022, approximately $600,000 of the Series 2 Notes and accrued interest of approximately $100,000 were included in the exchange.

Further, in connection with the 2022 Convertible Note Offering, we initially were required to complete an Uplist Transaction by February 15, 2023 under the terms of the 2022 Notes. If we are unable to complete or secure an extension to the Uplist Transaction deadline, then the 2022 Notes, Second Notes, and Third Notes will become immediately due and payable and we will be obligated to pay to each holder of the 2022 Notes, Second Notes, and Third Notes an amount equal to 125%, multiplied by the sum of the outstanding principal amount of the 2022 Notes, Second Notes, and Third Notes plus any accrued and unpaid interest on the unpaid principal amount of the 2022 Notes, Second Notes, and Third Notes to the date of payment, plus any default interest and any other amounts owed to the holder, payable in cash or shares of Common Stock. The Company has secured waivers from all required holders of the 2022 Notes, Second Notes, and Third Notes to extend the deadline to complete an uplist from (i) February 15, 2023 to March 15, 2023, (ii) March 15, 2023 to April 15, 2023, (iii) April 15, 2023 to May 15, 2023, (iv) May 15, 2023 to June 15, 2023, (v) June 15, 2023 to July 1, 2023, (vi) July 1, 2023 to July 31, 2023 and (vii) July 31, 2023 to August 31, 2023. No consideration was paid by the Company in connection with any of the Uplist Transaction deadline extensions.

On March 10, 2023, the Company entered into an amendment ("Amendment No. 2 to the First Notes") with the required holders of the Company's outstanding 2022 Notes issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On March 10, 2023, the Company also entered into an amendment ("Amendment No. 2 to the Second Notes" and, together with Amendment No. 2 to the First Notes, "Amendment No. 2 to the 2022 Notes") with each of the required holders of Company's outstanding Second Notes issued in connection with a private placement financing the Company completed on January 18, 2023.

Under Amendment No. 2 to the 2022 Notes, the following amendments to the 2022 Notes, and Second Notes will be effective at the moment in time immediately preceding the consummation of the offering in connection with the uplist of the Common Stock to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist Transaction"). If a holder of the 2022 Notes and/or the Second Notes elects to participate in the Uplist Transaction (each, a "Participating Holder") for an amount equal to no less than 50% of the Participating Holder's original investment amount in the 2022 Convertible Note Offering, such holder will be entitled to repayment of the principal amount of their 2022 Notes and/or Second Notes upon closing of the Uplist Transaction. In addition, the Company will issue to each Participating Holder a new convertible promissory note equal to the product of 2.4 and the sum of any prepayment premiums and total interest payable on such Participating Holder's 2022 Notes and/or Second Notes (the "2023 Notes"). The 2023 Notes will have a maturity date of July 6, 2024 and will be on substantially the same terms as the Second Notes. For non-Participating Holders (each, a "Non-Participating Holder"), the maturity date of the 2022 Notes and/or Second Notes held by such Non-Participating Holder will be extended to July 6, 2024. Further, each Non-Participating Holder will waive their right to demand repayment of any portion of the outstanding balance of such holder's 2022 Notes and Second Notes upon an Uplist Transaction. Notwithstanding the foregoing, if the registration statement filed in connection with the Uplist Transaction is not declared effective by 11:59 P.M. (EST) on June 15, 2023 (the "Amendment No. 2 Termination Date"), Amendment No. 2 to the 2022 Notes will automatically terminate and shall be of no further force or effect without any further action by the Company or the Requisite Holders, provided, that the Amendment No. 2 Termination Date may be extended by the written approval of the Company and required holders of the 2022 Notes, Second Notes and Third Notes which purchased at least 50% plus $1.00 of the 2022 Notes, Second Notes, and Third Notes based on the initial principal amounts thereunder (the "Requisite Holders"). Amendment No. 2 to the 2022 Notes was superseded by Amendment No. 8 to the 2022 Notes, Amendment No. 8 to the Second Notes and Amendment No. 3 to the Third Notes, and therefore, it is of no further force or effect.

During the three months ended June 30, 2023, the Company recorded interest expense on the 2022 Notes, the Second Notes, and the Third Notes of approximately $784,000 consisting of accrued interest of approximately $150,000 and accretion of original issue debt discount and issuance costs of approximately $634,000. During the nine months ended June 30, 2023, the Company recorded interest expense on the 2022 Notes, the Second Notes, and the Third Notes of approximately $1,893,000 consisting of accrued interest of approximately $413,000 and accretion of original issue debt discount and issuance costs of approximately $1,480,000.

Allocation of Proceeds

The Company accounted for the 2022 Notes, Second Notes, and Third Notes, and the 2022 Warrants, the Second Warrants, and the Third Warrants, and the 2022 Inducement Shares, Second Inducement Shares and the Third Inducement Shares in accordance with ASC 470-20-25-2 "Debt" which states that the allocation of the proceeds from the financing shall be based on the relative fair values of the securities issued at the time of the issuance. The 2022 Inducement Shares, the Second Inducement Shares, and the Third Inducement Shares and the 2022 Warrants, the Second Warrants, and the Third Warrants which are indexed to the Company's stock, are classified within stockholders' deficit in the accompanying consolidated financial statements. The allocated value of the 2022 Inducement Shares and the 2022 Warrants are $314,523 and $1,470,133, respectively. The allocated value of the Second Inducement Shares and the Second Warrants are $25,840 and $256,439, respectively. The allocated value of the Third Inducement Shares and the Third Warrants are $18,394 and $164,136, respectively. The allocated value of the 2022 Notes of $1,740,344 are allocated as short-term liabilities in the accompanying consolidated financial statements. The allocated value of the Second Notes of $247,721 are allocated as short-term liabilities in the accompanying consolidated financial statements. The allocated value of the Third Notes of $305,470 is allocated as short-term liabilities in the accompanying consolidated financial statements The fair value of the 2022 Placement Agent Warrants and the Second Placement Agent Warrants of $ 219,894 and $28,093, respectively, are being accounted for as debt issuance costs and are classified within stockholders' deficit in the accompanying consolidated financial statements. As of June 30, 2023 and September 30, 2022, the net carrying amount of the 2022 Notes was $2,945,448 and $1,662,492, respectively, with unamortized debt discount and issuance costs of $1,284,552 and $2,567,507, respectively. Effective September 30, 2022, the Company reclassified the carrying amount of the Exchanged Notes of $699,781 (see Note 12) that were previously included in 2022 Notes payable to Unsecured convertible notes. After the reclassification, the Unsecured convertible notes included both the Second Notes and the Exchanged Notes. As of June 30, 2023, the net carrying amount of the Second Notes was $345,845 with unamortized debt discount and issuance costs of $290,155, all of which is included in Unsecured convertible notes. In addition, as of June 30, 2023, the net carrying amount of the Third Notes was $55,992 with unamortized debt discount and issuance costs of $346,728, all of which is included in Unsecured convertible notes.

The 2022 Warrants and the 2022 Placement Agent Warrants were valued as of July 6, 2022 using the Black Scholes Model with the following assumptions:

	2022 Warrants	2022 Placement Agent Warrants
Closing price per share of Common Stock	$ 79.84	$ 79.84
Exercise price per share	$ 79.52	$ 80.48
Expected volatility	88.44%	88.44%
Risk-free interest rate	2.96%	2.96%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	5.0	5.0

The Second Warrants and the Second Placement Agent Warrants were valued as of January 18, 2023 using the Black Scholes Model with the following assumptions:

	Second Warrants	Second Placement Agent Warrants
Closing price per share of Common Stock	$ 46.08	$ 46.08
Exercise price per share	$ 79.52	$ 80.48
Expected volatility	111.31%	111.31%
Risk-free interest rate	3.43%	3.43%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	5.0	5.0

The Third Warrants were valued as of May 15, 2023 using the Black Scholes Model with the following assumptions:

	Third Warrants
Closing price per share of Common Stock	$ 22.16
Exercise price per share	$ 79.52
Expected volatility	114.33%
Risk-free interest rate	3.46%
Dividend yield	-
Remaining expected term of underlying securities (years)	5.0

12. SERIES CONVERTIBLE NOTES

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ("Series 1 Notes") and Series 2 Convertible Notes ("Series 2 Notes", and collectively with the Series 1 Notes, the "Series Convertible Notes") in the aggregate principal amount of $550,000 and $1,050,000, respectively. The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes. The Series Convertible Notes provide, among other things, for (i) a term of approximately three years; (ii) the Company's ability to prepay the Series Convertible Notes, in whole or in part, at any time; (iii) the automatic conversion of the Series Convertible Notes upon a Change of Control (all capitalized terms not otherwise defined to have the meaning ascribed to such terms of the Series Convertible Notes) into shares of the Company's Common Stock, at a per share price of $432.00 and $400.00 (the "Conversion Price") for the Series 1 Notes and Series 2 Notes, respectively; (iv) the ability of the holders of the Series Convertible Notes (each a "Holder", and together, the "Holders") to convert the principal of the Series Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price; (v) the Company's ability to convert all Note Obligations outstanding upon a Qualified Equity Financing into shares of Common Stock at the respective Conversion Price; (vi) the Company's ability to convert the principal of the Series Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price in the event the volume weighted average price ("VWAP") of the Common Stock equals or exceeds $512.00 per share for at least fifteen consecutive Trading Days; (vii) the Company's ability to convert all outstanding Note Obligations into shares of Common Stock at the respective Conversion Price (an "In Kind Note Repayment") in lieu of repaying the Note Obligations outstanding on the Maturity Date, provided, however, that in the case of an In-Kind Note Repayment, the outstanding Note Obligations will be calculated by increasing by thirty-five percent the aggregate sum of the unpaid Principal Amount held by each Holder and the accrued interest at a rate of ten percent per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent of the amount that is converted or prepaid. As consideration for agreeing to subordinate to the 2022 Notes, the premium applicable in connection with an In-Kind Note Repayment at maturity was increased from thirty-five percent to sixty percent. As consideration for agreeing to provide for an In-Kind Note Repayment upon the earlier of i) maturity or ii) the completion of an Uplist Transaction, the premium applicable in connection with an In-Kind Note Repayment at either maturity or simultaneous with an Uplist Transaction was further increased from sixty percent to three hundred and fifty percent.

As described in Note 11 above, as a part of the 2022 Convertible Note Offering, certain holders of the Series 2 Notes agreed to exchange their Series 2 Notes with an aggregate principal amount of $600,000 and accrued interest of approximately $100,000 for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "Exchanged Notes"). As of July 6, 2022, $699,781 of principal and accrued interest of the Series 2 notes was exchanged for the Exchanged Notes.

On March 10, 2023, the Company entered into an amendment (the "Series 2 Note Amendment" and, together with the Series 1 Amendment, the "Series Note Amendments") with each of the holders of the Company's outstanding Series 2 Convertible Notes (as amended, the "Series 2 Notes" and, together with the Series 1 Notes, the "Series Convertible Notes"). Pursuant to the Series Note Amendments, the Company can elect to convert the principal and accrued interest under the Series Convertible Notes (the "Series Note Obligations") at or after the effective time of the Uplisting Transaction, or the maturity date. In the event the Company exercises such option, the Series Note Obligations will be deemed to equal the product of 4.5 (which was previously 1.6 prior to the Series Note Amendments) and the outstanding Series Note Obligations. Notwithstanding the foregoing, if the registration statement filed in connection with the Uplist Transaction is not declared effective by 11:59 P.M. (EST) on or before the Uplisting Transaction deadline under the 2022 Notes and Second Notes, which was originally February 15, 2023, or such later extended date as provided for therein (the "Series Note Amendments Termination Date"), the Series Note Amendments will automatically terminate without any further action by the Company or the holders of the Series Convertible Notes. The Series Note Amendments Termination Date will be automatically extended upon any extension of the Uplisting Transaction deadline under the 2022 Notes, Second Notes, and Third Notes. As previously discussed herein, the deadline to complete the Uplist Transaction was extended on multiple previous occasions. As of July 31, 2023 the Uplist Transaction deadline under the 2022 Notes, Second Notes, and Third Notes is August 31, 2023. No consideration was paid by the Company in connection with any of the extensions of the Uplisting Transaction deadline under the 2022 Notes, Second Notes, and/or Third Notes.

During the three months ended June 30, 2023 and 2022, the Company recorded interest expense on the Series Convertible Notes of approximately $25,000 and $40,000, respectively. During the nine months ended June 30, 2023 and 2022, the Company recorded interest expense on the Series Convertible Notes of approximately $75,000 and $120,000, respectively.

13. RISKS AND UNCERTAINTIES - COVID-19 AND GEOPOLITICAL CONFLICTS

The Company sources its materials and services for its products and product candidates from facilities in areas impacted or which may be impacted by the outbreak of the COVID-19 or geopolitical conflicts. The Company's ability to obtain future inventory may be impacted, therefore potentially affecting the Company's future revenue stream. In addition, the Company has historically and principally funded its operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of Common Stock and warrants which may also be impacted by economic conditions beyond the Company's control as well as uncertainties resulting from geopolitical conflicts, including the recent war in Ukraine. The extent to which the COVID-19 and recent events in Ukraine will impact the global economy and the Company is uncertain and cannot be reasonably measured.

14. SHAREHOLDER ADVANCES AND PREFUNDINGS RELATED TO THE ANTICIPATED BRIDGE FINANCING

Through May 12, 2023, the Company raised $538,000 in the form of shareholder advances from two different investors to support operations in advance of the Company's prospective Uplisting Transaction. On May 15, 2023, $488,000 of these shareholder advances, which were contributed by a single investor, were converted to an Unsecured convertible note (the "Third Note") in connection with the Third Closing of the 2022 Convertible Note Offering (see Notes 11 and 15). The remaining $50,000 that was raised by the Company in the form of shareholder advances was repaid per the agreed terms on July 7, 2023 for $60,000.

On May 18, 2023 and May 31, 2023, the Company raised $340,000 and $350,015 from a shareholder and a third-party investor, respectively, to support operations in advance of the Company's anticipated closing of the Bridge Offering (as defined below, see Note 15). On July 7, 2023, the amount prefunded by the current shareholder was included in the first closing of the Bridge Offering. The amount prefunded by the third party investor is expected to be included in a subsequent closing of the Bridge Offering.

15. SUBSEQUENT EVENTS

On July 1, 2023, the "Company" entered into an amendment ("Amendment No. 7 to the First Notes") with the holders of the Company's outstanding 2022 Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, and June 15, 2023, issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 7 to the Second Notes") with the holders of the Company's outstanding Second Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, and June 15, 2023, issued in connection with a private placement financing the Company completed on January 18, 2023 (the "Second Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 2 to the Third Notes and, together with Amendment No. 7 to the First Notes and Amendment No. 7 to the Second Notes, the "Amendments to the 2022 Notes") with the holders of the Company's outstanding Third Notes, as amended on June 15, 2023, issued in connection with a private placement financing the Company completed on May 15, 2023 (the "Third Closing").

Under the Amendments to the 2022 Notes, the 2022 Notes, Second Notes, and Third Notes were amended to extend the date of the completion of an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (such transaction, an "Uplist Transaction") from July 31, 2023 to August 31, 2023.

As a result of the entry into the Amendments to the 2022 Notes, and pursuant to the terms of the Company's outstanding Exchanged Notes, the Exchanged Notes were automatically amended to extend the date of completion of an Uplist Transaction from July 31, 2023 to August 31, 2023. Also, as a result of the entry into the Amendments to the 2022 Notes, and pursuant to the terms of the Company's outstanding Series 1 Unsecured Convertible Promissory Notes and Series 2 Unsecured Convertible Promissory Notes, each as amended on March 10, 2023, the Series Note Amendments Termination Date set forth under Amendment No. 1 to the Series 1 Unsecured Convertible Promissory Notes and Amendment No. 1 to the Series 2 Unsecured Convertible Promissory Notes was automatically amended to extend from July 31, 2023 to August 31, 2023. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 7, 2023.

On July 7, 2023, the Company announced that it had entered into a Securities Purchase Agreement (the "2023 SPA") with certain institutional and accredited individual investors (collectively, the "Investors") providing for the issuance and sale by the Company to the Investors of an aggregate of (i) 218,656 shares (the "Shares") of common stock, par value $0.001, of the Company (the "Common Stock") at a purchase price of $2.20 per share; (ii) 624,525 warrants (the "Pre-Funded Warrants") at a purchase price of $2.192 per Pre-Funded Warrant, to purchase an aggregate of 624,525 shares of Common Stock (the "Pre-Funded Warrant Shares"); and (iii)1,686,361 warrants (the "Common Warrants") to purchase an aggregate 1,686,361 shares of Common Stock (the "Common Stock Warrants Shares"). The Shares, Pre-Funded Warrants, and Common Warrants were issued as part of a private placement offering authorized by the Company's board of directors (the "Bridge Offering"). The Company engaged an investment bank in connection with Bridge Offering. Per the terms of that agreement, the Company is obligated to pay the placement agent a fee of 8% of gross proceeds received and issue placement agent warrants to purchase that number of securities equal to 5% of the aggregate number of securities sold in the offering.

Pursuant to the lock-up agreement provided for by the SPA, the Investors agreed that they would either (A) purchase securities, for cash, in an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist Transaction") with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Investor for the Shares, Pre-Funded Warrants and Common Warrants under the SPA or (B) be subject to a lock-up provision not to sell or otherwise transfer any of the Shares, Pre-Funded Warrant Shares or Common Warrant Shares acquired by them in the Bridge Offering until the one-year anniversary of the Closing Date. The aggregate gross proceeds for the sale of the Shares, Pre-Funded Warrants, and Common Warrants will be approximately $1.85 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The closing of the sales of these securities under the SPA occurred on July 7, 2023 (the "Closing Date").

The 2023 SPA also provides additional provisions including: i) certain adjustments that would require the Company to issue additional securities to the Investors if the effective offering price to the public of Common Stock in connection with the next underwritten public offering is less than $32.00 per share; ii) a requirement to register the Shares, Pre-Funded Warrant Shares, and Common Stock Warrant Shares on a subsequent registration statement or statements; and, iii) certain restrictions on the Company's ability to conduct subsequent sales of its equity securities and certain business activities. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 13, 2023.

On July 7, 2023, the Company entered into an amendment ("Amendment No. 8 to the First Notes") with the holders of the Company's outstanding 2022 Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, and July 1, 2023, issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 8 to the Second Notes" with the holders of the Company's outstanding Second Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, and July 1, 2023, issued in connection with a private placement financing the Company completed on January 18, 2023 (the "Second Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 3 to the Third Notes", and, together with Amendment No. 8 to the First Notes and Amendment No. 8 to the Second Notes, the "Amendments to the 2022 Notes") with the holders of the Company's outstanding Third Notes, as amended on June 15, 2023, and as subsequently amended on July 1, 2023, issued in connection with a private placement financing the Company completed on May 15, 2023 (the "Third Closing").

Under the Amendments to the 2022 Notes, the following amendments to the 2022 Notes, Second Notes, and Third Notes will be simultaneously effective upon the closing of an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist Transaction"). The Specified Percentage (as defined below) of the then outstanding principal amount of the 2022 Notes, Second Notes, and Third Notes shall automatically convert (the "Automatic Conversion") into shares of Common Stock, with the conversion price for purposes of such Automatic Conversion being equal to the lower of (i) the per unit price at which any units (each unit being comprised of one share or share equivalent and accompanying warrants, if any) are sold in the Uplist Transaction or (ii) the price at which warrants issued in the Uplist Transaction are exercisable (but in no event increased above the conversion price in effect immediately prior to the pricing of the Uplist Transaction).

In addition, if the Holder (as defined below) (i) participates in the Uplist Transaction and in the Bridge Offering for a combined (taking into account the Holder's aggregate investment in the Uplist Transaction and the Bridge Offering) amount equal to no less than fifty percent (50%) of the Holder's original purchase price under the 2022 Notes, Second Notes, and Third Notes, and (ii) the Holder's amount of participation in the Uplist Transaction is at least 4.3 times the Holder's amount of participation in the Bridge Offering, then the Holder shall receive a pre-funded warrant (the "Participating Pre-Funded Warrant") to purchase a number of shares of Common Stock equal to the Specified Number (as defined below) times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Participating Pre-Funded Warrant (i) shall have an exercise price of $0.001 per share, (ii) may be exercised on a cashless basis, (iii) shall be exercisable by the Holder at any time commencing on the 90th day after issuance, (iv) may be redeemed by the Company for cash at a redemption price of $6.56 per share underlying the Participating Pre-Funded Warrant with any such redemption made pro rata to all holders of the Participating Pre-Funded Warrants, (v) and shall contain a customary beneficial ownership limitation provision. Additionally, the holder of the Participating Pre-Funded Warrants will agree that, until January 6, 2024, it shall not offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, or announce the intention to otherwise dispose of, the Participating Pre-Funded Warrant.

"Specified Percentage" means the greater of: (i) the percentage specified by the Company by notice to the 2022 Note holders (the "Holders", and each a "Holder") at least five business days prior to the closing of the Uplist Transaction, which percentage shall be the percentage necessary to ensure the applicable Nasdaq requirements regarding the Uplist Transaction are satisfied, and (ii) the percentage specified by the Holder by notice to the Company at least three business days prior to the closing of the Uplist Transaction (which percentage may be different for each 2022 Note, Second Note, and/or Third Note as determined by each Holder thereof); provided, that in no event shall the Specified Percentage for the 2022 Notes, Second Notes, and/or Third Notes (A) exceed twenty five percent (25%) unless otherwise agreed in writing by the Holder, or (B) exceed fifty percent (50%) unless otherwise agreed in writing by the Company.

"Specified Number" means, if the Specified Percentage is 50%, 2.4, which number shall be increased by 1.6% for each percentage point decrease in the Specified Percentage, such increase being compounded iteratively for each percentage point decrease in the Specified Percentage, with the result rounded to two decimal places. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 13, 2023.

Additionally, on July 7, 2023, the Company entered into an amendment (the "Omnibus Amendment to Notes and Warrants") with the Holders of the 2022 Notes, Second Notes, and Third Notes amending the 2022 Notes, Second Notes, and Third Notes and related warrants issued at each of the First Closing, Second Closing, and Third Closing (the "First Warrants", "Second Warrants" and "Third Warrants", respectively, and collectively, the "2022 Warrants"). Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes, Second Notes, Third Notes, and related warrants were amended (i) to modify the Most Favored Nation provisions therein to exclude the Bridge Offering, and (ii) to prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Participating Pre-Funded Warrants received by each Holder, respectively, in connection with the Automatic Conversion. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 13, 2023.

On July 7, 2023 the Company paid $60,000 to a shareholder that had previously advanced the Company $50,000 to support operations. The payment satisfied all remaining obligations in connection with the $538,000 of shareholder advances received by the Company through May 12, 2023. The additional $488,000 was issued as a Third Note (see Note 11).

On July 11, 2023, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is approximately $310,000 and incurs interest at a rate of7.49%. Per the terms of its agreement with First Insurance Funding, the Company is required to make monthly payments of approximately $32,000 through April 2024.

On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes, and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes. Pursuant to the Series 1 Convertible Notes, the Company can elect to convert the principal and accrued interest under the Series Convertible Notes obligation (the "Series Note Obligations") upon the earlier of the effective time of the Uplisting Transaction, or the maturity date. In the case of an In-Kind Note Repayment, the outstanding Note Obligations will be calculated by increasing by thirty-five percent the aggregate sum of the unpaid Principal Amount held by each Holder and the accrued interest at a rate of ten percent per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent of the amount that is converted or prepaid. As consideration for agreeing to subordinate to the 2022 Notes, the premium applicable in connection with an In-Kind Note Repayment at maturity was increased from thirty-five percent to sixty percent. In the event the Company exercises such option, the Series Note Obligations will be deemed to equal the product of 4.5 (which was previously 1.6 prior to the Series Note Amendments) and the outstanding Series Note Obligations.

On July 18, 2023, the Board of the Directors of the Company executed a unanimous written consent that, among other things, approved, subject to the approval of a majority of the stockholders of the Company, the following: 1) amend the Amended and Restated Articles of Incorporation (the "Articles") to a) increase the number of authorized shares of common stock, par value $0.001 (the "Common Stock") from 12 million to 350 million, b) create 5,000,000 shares of "blank check" preferred stock, and c) approve a reverse split at a ratio of between 1-for-1.5 and 1-for-20 without any proportionate decrease in the number of authorized shares; 2) amend the Bylaws of the Company to a) allow action by written consent of stockholders representing more than 50% of the total number of shares of Common Stock currently issued and outstanding, and b) establish that holders of thirty-three and one-third (33.3333%) of the total number of shares of Common Stock currently issued and outstanding shall constitute a quorum at any meeting of stockholders for the transaction of business, except as otherwise provided by the NRS or by the Articles; and, 3) approve the 2023 Omnibus Equity Incentive Plan with an initial reservation of 56,897 shares, options or other such grants. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 24, 2023.

On July 31, 2023, Arch Therapeutics, Inc. (the "Company") entered into an amendment ("Amendment No. 9 to the First Notes") with the holders of the Company's outstanding 2022 Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023 and July 7, 2023 issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On July 31, 2023, the Company also entered into an amendment ("Amendment No. 9 to the Second Notes") with the holders of the Company's outstanding Second Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, and July 7, 2023 issued in connection with a private placement financing the Company completed on January 18, 2023 (the "Second Closing"). On July 31, 2023, the Company also entered into an amendment ("Amendment No. 4 to the Third Notes and, together with Amendment No. 9 to the First Notes and Amendment No. 9 to the Second Notes, the "Amendments to the 2022 Notes") with the holders of the Company's outstanding Third Notes, as amended on June 15, 2023, and as subsequently amended on July 1, 2023 and July 7, 2023 issued in connection with a private placement financing the Company completed on May 15, 2023 (the "Third Closing").

Under the Amendments to the 2022 Notes, the 2022 Notes, Second Notes, and Third Notes were amended to extend the date of the completion of an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (such transaction, an "Uplist Transaction") from July 31, 2023 to August 31, 2023.

As a result of the entry into the Amendments to the 2022 Notes, and pursuant to the terms of the Company's outstanding Exchanged Notes, the Exchanged Notes were automatically amended to extend the date of completion of an Uplist Transaction from July 31, 2023 to August 31, 2023. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on August 4, 2023.

1,030,303 Units (consisting of 1,030,303 Shares of Common Stock and Investor Warrants to Purchase up to 1,030,303Shares of Common Stock)
Up to 1,030,303 Pre-Funded Units (consisting of Pre-Funded Warrants to Purchase up to 1,030,303 Shares of Common Stock and Investor Warrants to Purchase up to 1,030,303 Shares of Common Stock)
Up to 1,030,303 Shares of Common Stock Underlying the Pre-Funded Warrants and
Up to 1,030,303 Shares of Common Stock Underlying the Investor Warrants

ARCH THERAPEUTICS, INC.

PRELIMINARY PROSPECTUS

Sole Book-Running Manager

Dawson James Securities, Inc.

, 2023

Until , 2023 (25 days after the date of this prospectus), all dealers that buy, sell or trade our securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

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The information in this prospectus is not complete and may be changed. The selling stockholders named herein may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 8,2023

PRELIMINARY PROSPECTUS

ARCH THERAPEUTICS, INC.

8,644,907 Shares of Common Stock
Up to 1,567,127 Shares of Common Stock underlying the 2022 Notes upon Regular Conversion
Up to 783,564 Shares of Common Stock underlying the 2022 Notes upon Automatic Conversion
Up to 34,491 Shares of Common Stock underlying the 2022 Warrants and
2022 Placement Agent Warrants
Up to 11,331,025 Shares of Common Stock underlying the Common Warrants, Bridge Pre-Funded Warrants and True-Up Pre-Funded Warrants
Up to 20,783,850 Shares of Common Stock underlying the Uplist Conversion Warrants and 2022 Note Conversion Pre-Funded Warrants
3,433,560 Shares of Common Stock underlying the PIPE Pre-Funded Warrants and PIPE Investor Warrants

This prospectus relates to the offer and sale of up to 46,578,524 shares of our common stock, par value $0.001 per share ("**Common Stock**"), by the selling stockholders identified in this prospectus. The shares of Common Stock being offered include:

- 2,526 shares of Common Stock (the "**2022 Inducement Shares**") issued to selling stockholders in the second and third closing of our private placement that we completed on January 18, 2023, and May 15, 2023, respectively (the "**2022 Private Placement Financing**"), 418,040 shares of Common Stock (the "**Bridge Shares**") issued in our private placement that we completed on July 7, 2023 (the "**2023 Bridge Financing**") and up to 8,224,341 shares of Common Stock (the "**True-Up Shares**") that we may be required to issue in lieu of True-Up Pre-Funded Warrants (as defined below) pursuant to the securities purchase agreement dated July 7, 2023, as amended, related to the 2023 Bridge Financing (the "**Bridge SPA**");

- Up to 1,567,127 shares of Common Stock (the "**Conversion Shares**") issuable to selling stockholders upon conversion (a "**Regular Conversion**") of our convertible notes issued in the 2022 Private Placement Financing at a conversion price of $4.00 (which takes into account the change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision (as defined in this prospectus), from the original conversion price of $73.12) per share, under Article I thereof;

- Up to 783,564 shares of Common Stock (the "**Automatic Conversion Shares**") issuable to selling stockholders upon conversion of 50% of our convertible notes issued in the 2022 Private Placement Financing upon the Automatic Conversion (as defined in this prospectus);

- Up to 33,671 shares of Common Stock (the "**2022 Warrant Shares**") issuable to selling stockholders upon exercise, at an exercise price of $4.00 (which takes into account the change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision, from the original conversion price of $79.52) per share, of our warrants (the "**2022 Warrants**") issued in the second and third closing of our 2022 Private Placement Financing;

- Up to 783,564 shares of Common Stock ("**2022 Note Conversion Pre-Funded Warrant Shares**") issuable to the selling stockholders upon exercise, at an exercise price of $0.001 per share, of our pre-funded warrants (the "**2022 Note Conversion Pre-Funded Warrants**") issuable upon the Automatic Conversion in lieu of Automatic Conversion Shares to the extent needed to prevent any holder from beneficially owning more than 4.99% (or upon election 9.99%) of our outstanding Common Stock;

- Up to 20,000,286 shares of Common Stock ("**Uplist Conversion Warrant Shares**") issuable to the selling stockholders upon exercise, at an exercise price of $4.00 (which is the expected exercise price of the Investor Warrants (as defined below) being issued in the Primary Offering) per share, of our warrants ("**Uplist Conversion Warrants**") issuable upon the Automatic Conversion.

- Up to 821 shares of Common Stock (the "**2022 Placement Agent Warrant Shares**") issuable to the selling stockholders upon exercise, at an exercise price of $4.00 (which takes into account the change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision, from the original conversion price of $80.48) per share, of placement agent warrants issued in the 2022 Private Placement Financing (the "**2022 Placement Agent Warrants**");

- Up to 2,349,826 shares of Common Stock (the "**Common Warrant Shares**") issuable to selling stockholders upon exercise, at an exercise price of $8.00 per share, of our warrants (the "**Common Warrants**") issued in the 2023 Bridge Financing;

- Up to 756,871 shares of Common Stock ("**Bridge Pre-Funded Warrant Shares**" and together with the Common Warrant Shares, the "**Bridge Warrant Shares**") issuable to the selling stockholders upon exercise, at an exercise price of $0.008 per share, of pre-funded warrants issued in the 2023 Bridge Financing (the "**Bridge Pre-Funded Warrants**" and together with the Common Warrants, the "**Bridge Warrants**");

- Up to 8,224,341 shares of Common Stock (the "**True-Up Pre-Funded Warrant Shares**") issuable to selling stockholders upon exercise, at an exercise price of $0.001 per share, of our pre-funded warrants (the "**True-Up Pre-Funded Warrants**") that we may be required to issue to the Bridge Investors (as defined in this prospectus) as a result of the Primary Offering being at a price per share below $32.00, pursuant to the Bridge SPA;

- Up to 1,716,780 shares of Common Stock (the "**PIPE Investor Warrant Shares**") issuable to selling stockholders upon exercise, at an exercise price of $4.00 per share, of our warrants (the "**PIPE Investor Warrants**") to be issued in the private placement (the "**Uplist PIPE**") pursuant to the securities purchase agreement dated November 8, 2023 (the "**PIPE SPA**"); and

- Up to 1,716,780 shares of Common Stock ("**PIPE Pre-Funded Warrant Shares**" and together with the PIPE Investor Warrant Shares, the "**PIPE Warrant Shares**") issuable to the selling stockholders upon exercise, at an exercise price of $0.001 per share, of pre-funded warrants to be issued in the Uplist PIPE (the "**PIPE Pre-Funded Warrants**" and together with the PIPE Investor Warrants, the "**PIPE Warrants**").

The selling stockholders may sell the shares of Common Stock to be registered hereby from time to time on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market, in one or more transactions otherwise than on these exchanges or systems or in the over-the-counter market, such as privately negotiated transactions, or using a combination of these methods, and at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. See the disclosure under the heading "**Plan of Distribution**" beginning on page 44 of this prospectus for more information.

We will not receive any proceeds from the resale of Common Stock by the selling stockholders.

We originally offered and sold the securities issued or issuable in connection with the 2022 Private Placement Financing, Uplist PIPE and the Bridge Offering under an exemption from the registration requirements of the Securities Act of 1933, as amended (the "**Securities Act**"), pursuant to Section 4(a)(2) thereof and Rule 506 of Regulation D promulgated thereunder.

Our Common Stock is traded on the QB tier of the OTC Marketplace ("**OTCQB**") under the symbol "ARTH". On November 7, 2023, the closing price of our Common Stock was $6.40 (post-Reverse Split, as defined below) per share. In connection with the offering pursuant to the Company Prospectus, which precedes this prospectus in the registration statement of which this prospectus forms a part (the "**Primary Offering**"), described below, we have applied to list our Common Stock and Investor Warrants (as defined in the Company Prospectus) on the Nasdaq Capital Market under the symbols "ARTH" and "ARTHW," respectively.

In the Primary Offering, we are offering 1,030,303 units ("**Unit**s"), on a firm commitment basis, at an assumed public offering price of $4.125 per Unit (which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance), each Unit consisting of one share of Common Stock and one warrant to purchase one share of our Common Stock (the "**Investor Warrants**"). The Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of Common Stock can be purchased in the Primary Offering only with the accompanying Investor Warrants as part of a Unit (other than pursuant to the underwriters' option to purchase additional shares of Common Stock and/or Investor Warrants). The shares of Common Stock and Investor Warrants comprising the Units are immediately separable and will be issued separately in the Primary Offering. Each Investor Warrant offered by the Company Prospectus will be exercisable on the date of issuance at an assumed exercise price per share of Common Stock of $4.00 (which equals the minimum bid price per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A)), and will expire five years from the date of issuance. Pursuant to the Company Prospectus, we are also offering the shares of Common Stock issuable upon exercise of the Investor Warrants.

We are also offering in the Primary Offering to each purchaser whose purchases of Units would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding Common Stock immediately following the consummation of the Primary Offering, the opportunity to purchase, if the purchaser so chooses, pre-funded units ("**Pre-Funded Units**") (each Pre-Funded Unit consisting of one pre-funded warrant ("**Pre-Funded Warrant**") to purchase one share of Common Stock and one Investor Warrant to purchase one share of Common Stock) in lieu of Units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding Common Stock (or at the election of the purchaser, 9.99%). Each Pre-Funded Warrant contained in a Pre-Funded Unit will be exercisable into one share of Common Stock, exercisable until all of the Pre-Funded Warrants are exercised in full. The purchase price of each Pre-Funded Unit will equal the price per Unit being sold to the public in this offering minus $0.001, and the exercise price of each Pre-Funded Warrant included in the Pre-Funded Unit will be $0.001 per share of Common Stock. The Primary Offering also relates to the shares of Common Stock issuable upon exercise of any Pre-Funded Warrants contained in the Pre-Funded Units sold in the Primary Offering. Each Investor Warrant contained in a Pre-Funded Unit will have an assumed exercise price of $4.00 (which equals the minimum bid price per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A)). The Investor Warrants contained in the Pre-Funded Units will be exercisable immediately and will expire five years from the date of issuance. Pursuant to the Company Prospectus, we are also offering the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants and Investor Warrants contained in the Pre-Funded Units.

For each Pre-Funded Unit we sell in the Primary Offering, the number of Units we are offering will be decreased on a one-for-one basis. The Units and the Pre-Funded Units will not be issued or certificated. The shares of Common Stock or Pre-Funded Warrants, as the case may be, and the Investor Warrants can only be purchased together in the Primary Offering but the securities contained in the Units or Pre-Funded Units will be issued separately.

The final public offering price per Unit and Pre-Funded Unit, and the exercise price of the Investor Warrants, as applicable, will be determined through negotiation between the underwriters and us at the time of pricing, considering our historical performance and capital structure, prevailing market conditions, and overall assessment of our business, and may be at a discount to the current market price.

In the Primary Offering, we have granted the underwriters an option, exercisable within 45 days from the date of the Company Prospectus, to purchase from us, up to an additional 154,545 shares of Common Stock at the public offering price and/or Investor Warrants to purchase up to 154,545 shares of Common Stock (equal to 15% of the shares of Common Stock (and Pre-Funded Warrants, if any) and Investor Warrants sold in this offering), in any combination, at a price per Investor Warrant equal to the public offering price, less, in each case, the underwriting discounts and commissions, to cover over-allotments, if any.

We estimate that we will receive net proceeds from the Primary Offering of approximately $3.1 million or approximately $3.7 million if the underwriters exercise their over-allotment option in full, after deducting the underwriting discounts and commissions and estimating offering expenses payable by us.

In connection with the Primary Offering, we intend to effect a reverse stock split of our Common Stock at a ratio of 1-for-8 the "Reverse Split"). All share and per share information in this prospectus has been adjusted to reflect the anticipated reverse stock split.

We are a "smaller reporting company" as defined under the federal securities laws and, as such, are eligible for reduced public company reporting requirements. See "Prospectus Summary — Implications of Being a Smaller Reporting Company".

Investing in our Common Stock involves a high degree of risk. Before making any investment in our Common Stock, you should read and carefully consider the risks described in this prospectus under the heading "**Risk Factors**" beginning on page 13 of this prospectus.

You should rely only on the information contained in this prospectus or any prospectus supplement or amendment thereto. We have not authorized anyone to provide you with different information.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated , 2023

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ABOUT THIS PROSPECTUS

This prospectus relates to the offering by the selling stockholders identified in this prospectus of shares of our Common Stock referenced on the cover page of this prospectus.

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security registered under the Registration Statement of which this prospectus forms a part.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to this Registration Statement of which this prospectus forms a part, and you may obtain copies of those documents as described below under the heading "**WHERE YOU CAN FIND MORE INFORMATION**" beginning on page 103 of this prospectus.

As used in this prospectus, unless the context indicates or otherwise requires, the "**Company**", "**we**", "**us**", "**our**" and "**Arch**" refer to Arch Therapeutics, Inc., a Nevada corporation, and its consolidated subsidiary, and the term "**ABS**" refers to Arch Biosurgery, Inc., a private Massachusetts corporation that, through a reverse merger acquisition completed on June 26, 2013, has become our wholly owned subsidiary.

AC5, AC5-G, AC5-V, AC5-P, Crystal Clear Surgery, NanoDrape and NanoBioBarrier and associated logos are trademarks and/or registered trademarks of Arch Therapeutics, Inc. and subsidiary. All other trademarks, trade names and service marks included in this prospectus are the property of their respective owners.

This prospectus and the information incorporated by reference into this prospectus contain references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus and the information incorporated by reference into this prospectus, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other company.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks, uncertainties and assumptions. In some cases, you can identify forward-looking statements by terminology such as "if," "shall," "may," "might," "will likely result," "should," "expect," "plan," "anticipate," "believe," "estimate," "project," "intend," "goal," "objective," "predict," "potential" or "continue," or the negative of these terms or other comparable terminology. All statements made in this prospectus other than statements of historical fact are statements that could be deemed forward-looking statements, including without limitation statements about our business plan, our plan of operations and our need to obtain future financing. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks in the section entitled "**Risk Factors**" beginning on page 13 of this prospectus, and the risks set out below, any of which may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks include, by way of example and not in limitation, risks related to:

- Our ability to continue as a going concern;
- Our ability to obtain financing necessary to operate our business;
- Our limited operating history;
- Our ability to comply with the terms and covenants of our existing agreements and outstanding convertible notes, including the First Notes (as defined below) which are secured by security interests in substantially all of our assets;
- The dilutive effect of our outstanding warrants and convertible notes;
- The results of our research and development activities, including uncertainties relating to the preclinical and clinical testing of our product candidates;
- The commercialization of our primary product candidate;
- Our ability to develop, obtain required approvals for and commercialize our product candidates;
- Our ability to recruit and retain qualified key executives, and medical and science personnel;
- Our ability to develop and maintain an effective sales force to market our approved product candidates;
- Our ability to manage any future growth we may experience;
- Our ability to obtain and maintain protection of our intellectual property;
- Our dependence on third party manufacturers, suppliers, research organizations, academic institutions, testing laboratories and other potential collaborators;
- The size and growth of the potential markets for any of our approved product candidates, and the rate and degree of market acceptance of any of our approved product candidates;
- Our ability to successfully complete potential acquisitions and collaborative arrangements;
- Competition in our industry;
- The impact of the COVID-19 pandemic, and related responses of businesses and governments to the pandemic, on our operations and personnel, on commercial activity in the markets in which we operate and on our results of operations;
- General economic and business conditions; and
- Other factors discussed under the section entitled "**Risk Factors**."

New risks emerge in our rapidly-changing industry from time to time. As a result, it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business. If any such risks or uncertainties materialize or such assumptions prove incorrect, our results could differ materially from those expressed or implied by such forward-looking statements and assumptions. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity or performance. These forward-looking statements speak only as of the date of this prospectus. Except as required by applicable law, we do not intend to update any of these forward-looking statements.

PROSPECTUS SUMMARY

Our Company

We are a biotechnology company marketing a number of products based on our innovative AC5® self-assembling technology platform. We believe these products are important advances in the field of stasis and barrier applications, which includes managing wounds created during surgery, trauma, interventional care or disease; stopping bleeding (hemostasis); controlling leaking (sealant). We have recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5® Advanced Wound System, our first product. Our goal is to make care faster and safer for patients with products for use on external wounds, which we refer to as Dermal Sciences applications, and products for use inside the body, which we refer to as BioSurgery applications.

Our flagship products and product candidates are derived from our AC5® self-assembling peptide ("**SAP**") technology platform and are sometimes referred to as AC5 or the "AC5 Devices." These include AC5 Advanced Wound System and AC5® Topical Hemostat, which have received marketing authorization as medical devices in the United States and Europe, respectively, and which are intended for skin applications, such as management of complicated chronic wounds or acute surgical wounds. Marketing for AC5 Topical Hemostat in Europe has not initiated. Other products are in development for use in minimally invasive or open surgical procedures and include, for example, AC5-G™ for gastrointestinal endoscopic procedures and AC5-V™ and AC5® Surgical Hemostat for hemostasis inside the body, all of which are currently investigational devices limited by law to investigational use.

Products based on the AC5 platform contain a proprietary biocompatible peptide that is synthesized from proteogenic, naturally occurring L-amino acids. Unlike products that contain traditional peptide sequences, when applied to a wound, AC5-based products intercalate into the interstices of the tissue and self-assemble (i.e., self-build) into a protective physical-mechanical nanoscale structure that can provide a barrier to leaking substances, such as blood, while also acting as a biodegradable scaffold that enables healing. Self-assembly is a central component of the mechanism of action of our technology. Individual AC5 peptide units readily build themselves, or self-assemble, into an ordered network of nanofibrils when in aqueous solution by the following process:

- Peptide strands line up with neighboring peptide strands, interacting via hydrogen bonds (non-covalent bonds) to form a ribbon-like structure called a beta sheet.
- This process continues such that hundreds of strands organize with charged and polar side chains oriented on one face and non-polar side chains oriented on the opposite face of the beta sheets.
- Interactions of the resulting structure with water molecules and ions results in formation nanofibrils, which extend in length and can join together to form larger nanofibers.
- This network of AC5 peptide nanofibers forms the semi-solid physical-mechanical barrier that interacts with the extracellular matrix, is responsible for sealant, hemostatic and/or other properties that may be observed even in the presence of antithrombotic agents (i.e., blood thinners), and which subsequently becomes the scaffold that supports the repair and regeneration of damaged tissue.

Based on the intended application, we believe that the underlying AC5 SAP technology can impart important features and benefits to our products that may include, for instance, stopping bleeding (hemostasis), mitigating contamination, modulating inflammation, donating moisture, and enabling an appropriate wound microenvironment conducive to healing. Furthermore, we believe that AC5 SAP technology permits cell and tissue growth and is self-healing, in that it can dynamically self-repair around migrating cells. For instance, AC5 Advanced Wound System, which is indicated for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds, is shipped and stored at room temperature, is applied directly as a liquid, can conform to irregular wound geometry, self-assembles into a wound care matrix that can provide clinicians with multi-modal support, and does not possess sticky or glue-like handling characteristics. We believe these properties enhance its utility in several settings and contribute to its user-friendly profile.

We believe that our technology lends itself to a range of potential applications for wounds inside or on the body including those for which a hemostatic agent or sealant is needed. For instance, the results of certain preclinical and clinical investigations that either we have conducted, or others have conducted on our behalf, have shown quick and effective hemostasis with the use of AC5 SAP technology, and that time to hemostasis ("**TTH**") is comparable among test subjects regardless of whether such test subject had or had not been treated with therapeutic doses of anticoagulant or antiplatelet medications, commonly called "blood thinners." Furthermore, the transparency and physical properties of certain AC5 Devices may enable a surgeon to operate through it in order to maintain a clearer field of vision and prophylactically stop or lessen bleeding as surgery starts, a concept that we call Crystal Clear Surgery™. An example of a product that contains related features and benefits is AC5 Topical Hemostat, which is indicated for use as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound. AC5 Topical Hemostat has not yet been marketed in Europe but has received marketing authorization.

Sales and marketing efforts for our AC5 Advanced Wound System, which has received 510(k) marketing clearance from the FDA, address the demand for improved solutions to treat challenging chronic and acute surgical wounds, with a particular early focus on diabetic foot ulcers, venous leg ulcers and pressure ulcers. Chronic wounds are typically defined as wounds that have not healed after four weeks of standard care. Approximately 4 million to 6.5 million new onset chronic wounds are estimated to occur in the U.S. annually, including approximately 700,000 to 2 million diabetic foot ulcers, 2.5 million pressure ulcers, and 1.2 million venous leg ulcers. If untreated, improperly treated or unresponsive to treatment, these wounds can ultimately lead to amputation. The 5-year mortality rate among patients with chronic wounds, especially after an amputation, is significant.

Published data on AC5 Advanced Wound System shows encouraging outcomes, including limb salvage (avoided limb loss), among patients with multiple co-morbidities and challenging chronic wounds that failed to heal despite treatment with either traditional or other advanced wound care modalities over prolonged periods of time.

We currently maintain an internal commercial team focused on driving awareness and adoption of AC5 Advanced Wound System in several targeted channels with a particular focus on physician offices and government channels, such as Veterans Affairs ("**VA**") hospitals and military treatment facilities ("**MTFs**"). We anticipate that material growth in the physician office setting will require product reimbursement. To that end, we submitted an application to the Centers for Medicare and Medicaid Services ("**CMS**") in July 2022 for a unique product reimbursement code. Our application was subsequently approved with a go-live date of April 1, 2023. We have launched a temporary reimbursement support program in line with CMS guidance to support commercial use and adoption of AC5 Advanced Wound System both before and after the go-live date of our unique product code (A2020). In support of the VA and MTF market, we partnered with Lovell Government Services (" **LGS**"), a service-disabled veteran-owned small business, as its distributor in the government channel. As a direct result of its relationship with LGS, AC5 Advanced Wound System is listed on the four major government supply schedules (ECAT, DAPA, FSS and GSA) in order to allow doctors in any VA or MTF to order AC5 Advanced Wound System. We have also established and will continue to seek partnerships with reputable, value-added independent sales distributors on a case-by-case basis to expand the overall reach and footprint of its total sales organization. Presently, our commercialization efforts and resources remain dedicated to the U.S. market for advanced wound care.

Much of our operational efforts to date, which we often perform in collaboration with partners, have included selecting compositions and formulations for our initial products; conducting preclinical studies, including safety and other tests; conducting a human trial for safety and performance of AC5; developing and conducting a human safety study to assess for irritation and sensitization potential; securing marketing authorization for our first product in the United States and in Europe; supporting surgeons performing clinical case studies; obtaining post-marketing clinical data; developing, optimizing, and validating manufacturing methods and formulations, which are particularly important components of self-assembling peptide development; developing methods for manufacturing scale-up, reproducibility, and validation; engaging with regulatory authorities to seek early regulatory guidance as well as marketing authorization for our products; sourcing and evaluating commercial partnering opportunities in the United States and abroad; and developing and protecting the intellectual property rights underlying our technology platform.

Our long-term business plan includes the following goals:

- Continue to build recent commercial momentum and grow revenues by driving awareness, adoption and payment policies for AC5 Advanced Wound System with the now-effective CMS Level II Healthcare Common Procedure Coding System ("**HCPCS**") code dedicated to the "AC5";
- conducting biocompatibility, pre-clinical, and clinical studies on our products and product candidates;
- obtaining additional marketing authorization for products in the United States, Europe, and other jurisdictions as we may determine;
- continuing to develop third party relationships to manufacture, distribute, market and otherwise commercialize our products;
- continuing to develop academic, scientific and institutional relationships to collaborate on product research and development;
- expanding and maintaining protection of our intellectual property portfolio; and
- developing additional product candidates in Dermal Sciences, BioSurgery, and other areas.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding as required to support the milestones described previously and our operations generally;
- work with our manufacturing partners to scale up production of product compliant with current good manufacturing practices ("**cGMP**"), which activities will be ongoing and tied to our development and commercialization needs;
- further clinical development of our product platform;
- assess our technology platform in order to identify and select product candidates for potential advancement into development;
- seek regulatory input to guide activities related to expanded and new product marketing authorizations;
- continue to expand and enhance our financial and operational reporting and controls;
- pursue commercial partnerships; and
- expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and/or adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio.

We do not believe that our current cash on hand as of October 25, 2023 is sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. Even if the Primary Offering (as defined below) is successful, depending upon additional input from EU and US regulatory authorities, however, we do not expect to generate sufficient revenues from operations before we need to raise additional capital. Further, our estimates regarding our use of cash could change if we encounter unanticipated difficulties or other issues arise, including without limitation those set forth in this prospectus under the heading "**Risk Factors**" beginning on page 13, in which case our current funds may not be sufficient to operate our business for the period we expect.

Additionally, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA (as defined below), PIPE SPA (as defined below) and securities purchase agreement dated July 6, 2022, as amended (the "**2022 Notes SPA**"), associated with the sale of the 2022 Notes (the "**2022 Notes Financing**"), in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "**Risk Factors**" in this prospectus.

We have an aggregate of $6,268,501 in principal outstanding as of October 25, 2023 under the 2022 Notes (as defined below) and an aggregate of $587,959 in principal and accrued interest outstanding as of October 25, 2023 (calculated through maturity) under the Series 2 Notes (as defined below). The holders of the First Notes (as defined below) have been granted a security interest in substantially all of our assets pursuant to the terms of the security agreement dated July 6, 2022 (the "**Security Agreement**"), pursuant to which we provided a security interest in, and a lien on, substantially all of our assets as collateral for the repayment of the First Notes. If we fail to make payments on the First Notes when due or otherwise comply with the covenants contained in the First Notes, the First Note holders could declare us in default, in which event such holders would have the right to exercise their rights as a secured creditor with respect to our assets that secure the indebtedness, which would force us to suspend operations.

Proposed Listing on the Nasdaq Capital Market or an Alternate Exchange

Our Common Stock is presently quoted on the OTCQB under the trading symbol "ARTH." In connection with the offering pursuant to the Company Prospectus (the "**Primary Offering**"), we have applied to list our Common Stock and Investor Warrants (as defined in the Company Prospectus) on the Nasdaq Capital Market under the symbols "ARTH" and "ARTHW ," respectively. Although we have applied to list the Investor Warrants, there is no established public trading market for the Investor Warrants and without an active trading market, the liquidity of the Investor Warrants will be limited. No assurance can be given that our listing application for our Common Stock and Investor Warrants will be approved by the Nasdaq Capital Market or an Alternate Exchange. If our listing application is approved, our Common Stock will cease to be traded on the OTCQB. The Primary Offering will occur only if the Nasdaq Capital Market or an Alternate Exchange approves the listing of our Common Stock by November 15, 2023. The Nasdaq Capital Market and Alternate Exchange listing requirements include, among other things, a stock price threshold. As a result, prior to effectiveness, we will need to take the necessary steps to meet Nasdaq Capital Market listing requirements or the listing requirements of an Alternate Exchange, including but not limited to a reverse split of our outstanding shares of Common Stock.

Implications of Being a Smaller Reporting Company

We are a "smaller reporting company," meaning that the market value of our Common Stock held by non-affiliates is less than $700 million and our annual revenue is less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after the Primary Offering if either (i) the market value of our stock held by non-affiliates is less than $250 million as of the last business day of our second fiscal quarter or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Corporate Information

Arch Therapeutics, Inc. (together with its subsidiary, the "**Company**" or "**Arch**") arose from the June 26, 2013 merger (the "**Merger**") of three entities previously known as Arch Biosurgery, Inc., Almah, Inc., and Arch Acquisition Corporation, respectively.

Arch Biosurgery, Inc. ("**ABS**"), a biotechnology company, was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc., changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. on April 7, 2008, and, as part of the Merger transaction, changed its name from Arch Therapeutics, Inc. to Arch Biosurgery.

Almah, Inc., was incorporated under the laws of the State of Nevada on September 16, 2009 and, as part of the Merger transaction, changed its name to Arch Therapeutics, Inc. and abandoned both its prior business plan and operations in order to adopt those of ABS.

Arch Acquisition Corporation, or Merger Sub, was a wholly owned subsidiary of Almah, Inc., formed for the purpose of the Merger transaction, pursuant to which Merger Sub merged with and into ABS, and ABS thereafter became the wholly owned subsidiary of the Company.

Prior to the completion of the Merger, we were a "shell company" under applicable rules of the SEC, and had no or nominal assets or operations.

Our principal executive offices are located at 235 Walnut St., Suite 6, Framingham, Massachusetts 01702. The telephone number of our principal executive offices is (617) 431-2313. Our website address is http://www.archtherapeutics.com. We have not incorporated by reference into this prospectus the information on, or that can be accessed through, our website, and you should not consider it to be a part of this document. You should not rely on any information on that website in making your decision to purchase shares of our Common Stock.

The Transactions

The shares of our Common Stock being offered for resale by selling stockholders named herein pursuant to this prospectus were issued or are issuable in connection with (i) the 2022 Private Placement Financing, (ii) the Bridge Offering and (iii) the Uplist PIPE.

Uplist PIPE

On November 8, 2023, the Company and certain institutional and accredited individual investors (collectively, the "**PIPE Investors**") entered into a Securities Purchase Agreement (the "**PIPE SPA**"), pursuant to which the Company has agreed to issue and sell to the PIPE Investors, and the PIPE Investors have agreed to purchase from the Company, an aggregate of (i) warrants (the "**PIPE Pre-Funded Warrants**") to purchase an aggregate of 1,716,780 shares of Common Stock (the "**PIPE Pre-Funded Warrant Shares**") and (ii) warrants (the "**PIPE Investor Warrants**" and together with the PIPE Pre-Funded Warrants, the "**PIPE Warrants**") to purchase an aggregate 1,716,780 shares of Common Stock (the "**PIPE Investor Warrant Shares**" and together with the PIPE Pre-Funded Warrant Share, the "**PIPE Warrant Shares**"), at a purchase price of $4.124 per PIPE Pre-Funded Warrant to purchase one share of Common Stock and accompanying PIPE Investor Warrant to purchase one share of Common Stock, for aggregate gross proceeds of $7.1 million, before deducting the placement agent's fees and estimated offering expenses, and expected net proceeds of $6.4 million after deducting the placement agent's fees and estimated offering expenses payable by the Company. The PIPE Pre-Funded Warrants, and PIPE Investor Warrants will be issued as part of a private placement offering authorized by the Company's board of directors (the "**Uplist PIPE**"). The Company currently intends to use the net proceeds it receives from the Uplist PIPE for product marketing and for general working capital purposes. The purpose of the Uplist PIPE is mainly to assist the Company in meeting the initial listing requirements of the Nasdaq Capital Market, including for purposes of the minimum stockholders' equity requirement and the requirement of the Company to achieve its listing in connection with a firm commitment underwritten public offering.

The closing of the Uplist PIPE is contingent upon, among other conditions, the registration statement of which this prospectus forms a part being declared effective by the SEC and the approval of the listing of the Common Stock on Nasdaq, and the closing is expected to occur immediately prior to the pricing of the Primary Offering.

The Company retained Dawson James Securities, Inc. ("**DJ**"), pursuant to a placement agency agreement, dated November 8, 2023, as placement agent in connection with the Uplist PIPE. The Company will pay DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Uplist PIPE (expected to be $566,400), will reimburse DJ for legal and other expenses of up to $150,000 and will issue to DJ, or its designees, warrants (the "**PIPE Placement Agent Warrants**") to purchase an aggregate of 85,839 shares of Common Stock. The PIPE Placement Agent Warrants will be exercisable at any time and from time to time, in whole or in part, during the five-year period commencing upon issuance, at a price per share equal to $5.15625 (which is 125% of the price per Unit sold in the Primary Offering).

PIPE Pre-Funded Warrants

The PIPE Pre-Funded Warrants (i) will have a nominal exercise price of $0.001 per share; (ii) will be exercisable immediately upon issuance; (iii) will be exercisable until all of the PIPE Pre-Funded Warrants are exercised in full; and (iv) will have have a provision preventing the exercisability of such PIPE Pre-Funded Warrants if, as a result of the exercise of the PIPE Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than either 4.99% or 9.99% of the Common Stock (the "**Ownership Limitation**") immediately after giving effect to the exercise of the PIPE Pre-Funded Warrants.

PIPE Investor Warrants

The PIPE Investor Warrants (i) will have an exercise price of $4.00 per share; (ii) will have a term of exercise equal to 5 years after their issuance date; (iii) will be exercisable immediately upon issuance; and (iv) will have a provision preventing the exercisability of such PIPE Investor Warrants if, as a result of the exercise of the PIPE Investor Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the PIPE Investor Warrants.

Pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which the Primary Offering is intended to be,, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants (as defined below), Uplist Conversion Warrants (as defined below) and Exchange Investor Warrants (as defined below) for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the PIPE Investors dated November 8, 2023 (the "**PIPE Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) the closing date of the Uplist Transaction and (ii) the 60th calendar day following the date of the PIPE Registration Rights Agreement one or more registration statements to register the PIPE Warrant Shares, the Uplist Conversion Warrant Shares (as defined below) and the 2022 Note Conversion Pre-Funded Warrant Shares (as defined below) for resale under the Securities Act. The Company's failure to satisfy certain filing and effectiveness deadlines and certain other requirements set forth in the PIPE Registration Rights Agreement may subject the Company to payment of monetary penalties.

We are registering for resale by the selling shareholders named herein (i) up to 3,433,560 PIPE Warrant Shares; (ii) up to 20,000,286 Uplist Conversion Warrant Shares; and (iii) up to 783,564 2022 Note Conversion Pre-Funded Warrant Shares.

Bridge Offering

Between July 7, 2023 and September 11, 2023, pursuant to a Securities Purchase Agreement dated July 7, 2023, as subsequently amended (the "**Bridge SPA**"), among the Company and certain institutional and accredited individual investors (collectively, the "**Bridge Investors**") the Company issued and sold to the Bridge Investors an aggregate of (i) 418,051 shares (the "**Bridge Shares**") of Common Stock; (ii) warrants (the "**Bridge Pre-Funded Warrants**") to purchase an aggregate of 756,871 shares of Common Stock (the "**Bridge Pre-Funded Warrant Shares**"); and (iii) warrants (the "**Common Warrants**" and together with the Bridge Pre-Funded Warrants, the "**Bridge Warrants**") to purchase an aggregate 2,349,826 shares of Common Stock (the "**Common Warrant Shares**" and together with the Bridge Pre-Funded Warrant Share, the "**Bridge Warrant Shares**"), at a purchase price of $2.20 per Bridge Share and accompanying Common Warrant to purchase two shares of Common Stock, and $2.192 per Bridge Pre-Funded Warrant to purchase one share of Common Stock and accompanying Common Warrant to purchase two shares of Common Stock. The Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants were issued as part of a private placement offering authorized by the Company's board of directors (the "**Bridge Offering**").

Pursuant to the Bridge SPA, the Bridge Investors agreed not to sell or otherwise transfer any of the Bridge Shares or Bridge Warrant Shares prior to the one-year anniversary of the Bridge Closing Date. In the event that a Bridge Investor purchases securities in connection with an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which the Primary Offering is intended to be, and/or in the Uplist PIPE, with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, the one-year lock-up period will no longer apply to the Bridge Shares and Bridge Warrants. The aggregate gross proceeds for the sale of the Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants was approximately $2.6 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The first closing of the sales of these securities under the Bridge SPA occurred on July 7, 2023 (the "**Bridge Closing Date**").

Under the Bridge SPA, the Company also agreed that upon the closing of the next underwritten public offering of Common Stock (a "**Qualifying Offering**"), which the Company agreed is the Primary Offering, if the effective offering price to the public per share of Common Stock (the "**Qualifying Offering Price**") is lower than $32.00 per share, then the Company shall issue additional Bridge Pre-Funded Warrants (the "**True-Up Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**True-Up Pre-Funded Warrant Shares**"), or shares of Common Stock (the "**True-Up Shares**") in lieu thereof to the extent necessary to cause the Company to meet the listing requirements of the Company's proposed trading market in the Uplist Transaction, in an amount reflecting a reduction in the purchase price paid for the Bridge Shares and Bridge Pre-Funded Warrants that equals the proportion by which the Qualifying Offering Price is less than $32.00. The Company also agreed that the Qualifying Offering Price as a result of this offering is $4.00. **Accordingly, at the closing of the Primary Offering, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, the Company expects to issue (i) True-Up Pre-Funded Warrants with an exercise price of $0.001 to purchase an aggregate of 5,695,529 shares of Common Stock and (ii) an aggregate of 2,528,812 True-Up Shares to the Bridge Investors.** The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and the Primary Offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341.

The Company retained DJ as placement agent in connection with the Bridge Offering. Pursuant to an engagement agreement, the Company paid DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Bridge Offering and reimbursement of expenses of $50,000. Additionally, on September 7, 2023 the Company issued to DJ, or its designees, warrants, as subsequently amended (the "**Bridge Placement Agent Warrants**") to purchase an aggregate of 55,242 shares of Common Stock (the "**Bridge Placement Agent Warrant Shares**"). The Bridge Placement Agent Warrants are exercisable at any time and from time to time, in whole or in part, until September 7, 2028, at a price per share equal to $2.20 (which will increase to $5.15625 at the closing of the Uplist Transaction, representing 125% of the assumed price per share of Common Stock in the Uplist Transaction, as required by FINRA).

Bridge Pre-Funded Warrants

The Bridge Pre-Funded Warrants (i) have a nominal exercise price of $0.008 per share; (ii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance, (B) 120 days after the closing date of an Uplist Transaction, and (C) the date that a registration statement registering the Bridge Pre-Funded Warrant Shares is declared effective; (iii) are exercisable until all of the Bridge Pre-Funded Warrants are exercised in full; and (iv) have a provision preventing the exercisability of such Bridge Pre-Funded Warrants if, as a result of the exercise of the Bridge Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Bridge Pre-Funded Warrants.

Common Warrants

The Common Warrants (i) have an exercise price of $8.00 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance and (B) the date that a registration statement registering the Common Warrant Shares is declared effective; (iv) have a provision permitting voluntary adjustments to the exercise price by the Company, subject to the prior written consent of the Common Warrant holder; (v) are automatically exchanged upon the closing of an Uplist Transaction for a new warrant that is identical to the warrants (other than any pre-funded warrants), if any, being issued to investors in such Uplist Transaction, with the number of shares underlying such new warrant being equal to the number of Common Warrant Shares then underlying the Common Warrant multiplied by three and (vi) have a provision preventing the exercisability of such Common Warrants if, as a result of the exercise of the Common Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Company Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Common Warrants. **Accordingly, at the closing of the Primary Offering, the Common Warrants will be cancelled and exchanged for newly issued warrants (the "Exchange Investor Warrants") identical to the Investor Warrants to purchase an aggregate of 7,049,447 shares of Common Stock (the "Exchange Investor Warrant Shares") at an exercise price per share equal to the exercise price per share of the Investor Warrants.**

In addition, as noted above, pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the Bridge Investors dated July 7, 2023, as subsequently amended (the "**Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) 30 days following the closing date of the Uplist Transaction and (ii) November 30, 2023 one or more registration statements (any such registration statement, a "**Resale Registration Statement**") to register the Bridge Shares, the Bridge Warrant Shares and the Exchange Investor Warrant Shares for resale under the Securities Act of 1933, as amended (the "**Securities Act**"). The Company's failure to satisfy certain filing and effectiveness deadlines with respect to a Resale Registration Statement and certain other requirements set forth in the Registration Rights Agreement may subject the Company to payment of monetary penalties.

We are registering for resale by the selling shareholders named herein (i) the 418,040 Bridge Shares; (ii) up to 3,106,684 Bridge Warrant Shares; (iii) up to 8,224,341 True-Up Shares and (iv) up to 8,224,341 True-Up Pre-Funded Warrant Shares.

2022 Private Placement Financing

On July 7, 2022, the Company announced that it had entered into a Securities Purchase Agreement (the "**2022 SPA**") with certain institutional and accredited individual investors (collectively, the "**2022 Investors**") providing for the issuance and sale by the Company to the 2022 Investors of (i) Senior Secured Convertible Promissory Notes (the "**First Notes**"); (ii) warrants (the "**First Warrants**") to purchase 53,195 shares of Common Stock (the "**First Warrant Shares**"); and (iii) 7,980 shares of Common Stock (the "**First Inducement Shares**"), equal to 15% of the principal amount of the Senior Secured Convertible Promissory Notes divided by the closing price of the Common Stock immediately prior to the First Closing Date (as defined below). The securities were issued as part of a convertible note offering authorized by the Company's board of directors (the "**2022 Private Placement Financing**"). The first closing of the sales of these securities under the 2022 SPA (the "**First Closing**") occurred on July 6, 2022 (the "**First Closing Date**"). The Company retained Maxim Group LLC ("**Maxim**") as placement agent in connection with the First Closing. Pursuant to an engagement agreement the Company entered into with Maxim (the "**2022 Engagement Letter**"), that we entered into with Maxim, we agreed, among other things, to (i) pay Maxim 10% of the gross proceeds in the First Closing from certain institutional investors, or $240,000, and (ii) issue Maxim, or its designees, warrants ("**First Placement Agent Warrants**") to purchase up to 10% of the aggregate number of shares sold to the institutional investors in the First Closing, or warrants to purchase up to 3,939 shares of Common Stock.

On January 18, 2023, the Company entered into Amendment No. 1 to the 2022 SPA (the "**Amendment**"), with certain Investors in connection with the second closing of the 2022 Private Placement Financing (the "**Second Closing**") for the issuance and sale by the Company to such Investors of an aggregate of (i) Unsecured Convertible Promissory Notes (each a "**Second Note**" and collectively, the "**Second Notes**") in the aggregate principal amount of $636,000, which includes an aggregate $106,000 original issue discount in respect of the Second Notes; (ii) warrants (the "**Second Warrants**") to purchase an aggregate of 15,996 shares of Common Stock at an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share (the "**Second Warrant Shares**"); and (iii) 1,200 shares of Common Stock (the '**Second Inducement Shares**"). The aggregate gross proceeds for the sale of the Second Notes, Second Warrants, and Second Inducement Shares was approximately $530,000, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company of approximately $15,000. The Second Closing of the sales of these securities under the 2022 SPA, as amended, occurred on January 18, 2023 (the "**Second Closing Date**"). The Company retained Maxim as placement agent in connection with the private placement of $500,000 of the Second Notes to the institutional investors. Pursuant to the 2022 Engagement Letter, the Company agreed, among other things, to (i) pay Maxim 10% of the gross proceeds in the Second Closing of the 2022 Private Placement Financing from the institutional investors, or $50,000, and (ii) issue to Maxim, or its designees, warrants (the "**2022 Placement Agent Warrants**") to purchase up to 10% of the aggregate number of shares sold to the institutional investors in the Second Closing of the Convertible Notes Offering, or warrants to purchase up to 821 shares of Common Stock at a price per share equal to $80.48 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) (the "**2022 Placement Agent Warrant Shares**").

On May 15, 2023, the Company entered into Amendment No. 2 to the 2022 SPA related to the 2022 Private Placement Financing (the '**Second Amendment**") with an Investor in connection with the third closing of the 2022 Private Placement Financing (the "**Third Closing**") for the issuance and sale by the Company to an Investor of an aggregate of (i) Unsecured Convertible Promissory Notes (each a "**Third Note**" and collectively, the "**Third Notes**") in the aggregate principal amount of $702,720, which includes an aggregate $214,720 original issue discount in respect of the Third Notes; (ii) warrants (the "**Third Warrants**") to purchase an aggregate of 17,675 shares of Common Stock at an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share (the "**Third Warrant Shares**" and together with the Second Warrant Shares, the "**2022 Warrant Shares**"); and (iii) 1,326 shares of Common Stock (the "**Third Inducement Shares**" and together with the Second Inducement Shares, the "**2022 Inducement Shares**"). The aggregate gross proceeds for the sale of the Third Notes, Third Warrants, and Third Inducement Shares was approximately $488,000, before deducting any estimated fees and offering expenses payable by the Company. The Company did not engage a placement agent in connection with the issuance of the Third Notes, Third Warrants, and Third Inducement Shares. The Third Closing of the sales of these securities under the 2022 SPA, as amended, occurred on May 15, 2023 (the "**Third Closing Date**").

2022 Notes

The First Notes, Second Notes, and Third Notes (collectively, the "**2022 Notes**") bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the issuance date until the 2022 Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes. The 2022 Notes mature on January 6, 2024. Any amount of principal or interest on the 2022 Notes that is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full.

The 2022 Notes are convertible into shares of Common Stock at the option of each Holder from the date of issuance at $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) (the "**Conversion Price**"), subject to adjustment, through the later of (i) January 6, 2024 (the "**Maturity Date**") or (ii) the date of payment of the Default Amount (as defined in the 2022 Notes).

The 2022 Notes contain events of default, which include, among other things, (i) the Company's failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our failure to complete an Uplist Transaction by November 15, 2023 and (iii) our default on the Uplist Conversion Warrant Exchange Offer Obligation (as defined below).

The First Warrants, Second Warrants, and Third Warrants (collectively, the "**2022 Warrants**") (i) have an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrants if, as a result of the exercise of the 2022 Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. Pursuant to the "**Most Favored Nation Provision**" contained in the 2022 Notes and the 2022 Warrants, as long as the 2022 Notes and 2022 Warrants remain outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes and 2022 Warrants of such more favorable terms, and to use best efforts to effect such terms in the 2022 Notes and 2022 Warrants.

Note Modification Agreements

On November 8, 2023, the Company entered into (i) an amendment ("**Amendment No. 12 to the First Notes**") with the holders of the First Notes, (ii) an amendment ("**Amendment No. 12 to the Second Notes**") with the holders of the Second Notes and (iii) an amendment ("**Amendment No. 7 to the Third Notes**" and, together with Amendment No. 12 to the First Notes and Amendment No. 12 to the Second Notes, the "**Amendments to the 2022 Notes**") with the holders of the Third Notes.

Under the Amendments to the 2022 Notes, the following amendments to the 2022 Notes will be simultaneously effective upon the closing of the Uplist Transaction. 50% of the then outstanding principal amount of the 2022 Notes shall automatically convert (the "**Automatic Conversion**") into shares of Common Stock (the "**Automatic Conversion Shares**"), with the conversion price for purposes of such Automatic Conversion being $4.00. Upon the Automatic Conversion and to the extent that the beneficial ownership of a holder of 2022 Notes (a "**Holder**" and, all holders of 2022 Notes together, the "**Holders**") would increase over the applicable Ownership Limitation, the Holder will receive pre-funded warrants (the "**2022 Note Conversion Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**2022 Note Conversion Pre-Funded Warrant Shares**") in lieu of shares of Common Stock otherwise issuable to the Holder in connection with the Automatic Conversion, which 2022 Note Conversion Pre-Funded Warrants shall have an exercise price of $0.001 per share, may be exercised on a cashless basis, shall be exercisable immediately upon issuance and shall contain a customary beneficial ownership limitation provision.

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "**Uplist Conversion Warrant**", and the shares issuable upon exercise thereof, the "**Uplist Conversion Warrant Shares**") to purchase a number of shares of Common Stock equal to 6.3812 times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price per share of $4.00 and shall otherwise be identical to the PIPE Investor Warrants. The Company also agreed in the Amendments to the 2022 Notes to file no later than sixty (60) days after the closing of the Uplist Transaction a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Uplist Transaction, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW" (the "**Uplist Conversion Warrants Exchange Offer Obligation**").

The Amendments to the 2022 Notes also prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Accordingly, it is currently anticipated that at the closing of the Primary Offering: (i) an aggregate of 783,564 shares of Common Stock (and/or 2022 Note Conversion Pre-Funded Warrants to purchase up to 783,564 shares in lieu thereof) will be issued upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, representing 50% of the $6,268,501 in principal amount currently outstanding as of October 25, 2023 under the 2022 Notes, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in the Primary Offering of $4.00 per share; and (ii) the Holders will be issued Uplist Conversion Warrants to purchase an aggregate of 20,000,286 shares of Common Stock, representing 6.3812 multiplied by the $3,134,250 of principal amount converted in the Automatic Conversion.

Additionally, on July 7, 2023, the Company entered into an amendment (the "**Omnibus Amendment to Notes and Warrants**") with the Holders of the 2022 Notes, amending the 2022 Notes and 2022 Warrants. Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes and 2022 Warrants were amended to modify the Most Favored Nation provisions therein to exclude the Bridge Offering.

Under the registration rights agreement, dated as of May 15, 2023, as amended, (as amended, the "**Second Amended and Restated Registration Rights Agreement**") the Company is required to file a registration statement registering the securities issued in the Second Closing and Third Closing, including the applicable 2022 Notes and 2022 Warrants, no later than 45 days following the closing of the Uplist Transaction. Due to the operation of the Most Favored Nation Provision, the number of Conversion Shares underlying the First Notes will increase due to the Uplist PIPE, and thus we are also registering for resale the Conversion Shares underlying the First Notes.

We are registering for resale by the selling shareholders named herein (i) up to 1,567,127 Conversion Shares, (ii) up to 783,564 Automatic Conversion Shares; (iii) the 2,526 2022 Inducement Shares; (iv) up to 33,671 2022 Warrant Shares; and (v) up to 821 2022 Placement Agent Warrant Shares.

Recent Developments

Bylaw Amendments

On July 18, 2023, the Board approved an amendment to the Amended and Restated Bylaws of the Company (the "**Bylaw Amendment**"), effective immediately. The Bylaw Amendment amended the Amended and Restated Bylaws (i) to allow stockholders of the Company to take action by written consent without a meeting with not less than the minimum number of votes that would be necessary to take such action if the matter was presented at a meeting of stockholders at which all shares entitled to vote thereon were present and voted, subject to certain limitations and (ii) to provide that in in the absence of a quorum, the chairman of a stockholder meeting can adjourn the meeting, respectively.

Equity Incentive Plan

Effective August 13, 2023, the Board adopted and approved the Amended and Restated 2023 Equity Incentive Plan (the "**2023 Plan**") and reserved 56,896 shares of Common Stock for issuance thereunder to employees, officers, directors and consultants of the Company. The stockholders of the Company approved the plan on August 22, 2023. The Plan has a term of 6 years and is intended to replace the Company's 2013 Stock Incentive Plan, which expired on June 18, 2023.

The general purpose of the 2023 Plan is to provide a means whereby eligible employees, officers, non-employee directors, consultants, advisors, and other individual service providers may develop a sense of proprietorship and personal involvement in the Company's development and financial success, and to encourage them to devote their best efforts to the Company, thereby advancing the Company's interests and the interests of stockholders of the Company. The 2023 Plan permits the Company to grant a variety of forms of awards, including stock options, stock appreciation rights, restricted stock, restricted stock units, and dividend equivalent rights, to allow the Company to adapt its incentive compensation program to meet its needs.

In addition, the number of shares of Common Stock available for issuance under the 2023 Plan will automatically increase on October 1st of each fiscal year of the Company commencing with October 1, 2023, and on each October 1 thereafter until the 6th anniversary of the date of the 2023 Plan's initial adoption by the Board, in an amount equal to five percent (5%) of the total number of shares of Common Stock outstanding on September 30th of the preceding fiscal year. Furthermore, effective at the close of business on the date of the closing (the "**Uplist Date**") of the public offering in connection with which the Common Stock becomes tradeable on a national exchange and on the first day of each fiscal quarter of the Company thereafter until the earlier of (i) the five-year anniversary of the Uplist Date and (ii) October 31, 2028, the number of shares of Common Stock available for issuance under the 2023 Plan shall automatically increase by an amount equal to fifteen percent (15%) of the incremental number of shares of Common Stock, if any, issued by the Company (x) with respect to the "Bridge Offering," including without limitation "Pre-Funded Warrant Shares" and "Common Warrant Shares," the "Uplist Transaction" and/or a "Qualifying Offering" (as such terms are defined in the 2023 Plan), (y) with respect to the Uplist Date, since the date on which the stockholders ratified the 2023 Plan, and (z) with respect to each fiscal quarter thereafter, during the previous fiscal quarter (excluding in each case shares of Common Stock issued pursuant to awards under the 2023 Plan); provided, however, that shares of Common Stock issued in connection with any such Qualifying Offering shall not be taken into account except to the extent, if any, that such shares are issued with respect to shares of Common Stock issued in connection with the Bridge Offering and/or the Uplist Transaction.

The Offering

Common Stock being offered	Up to 46,578,524 shares of Common Stock, including (i) 2,526 2022 Inducement Shares; (ii) up to 1,567,127 Conversion Shares; (iii) up to 783,564 Automatic Conversion Shares; (iv) up to 33,671 2022 Warrant Shares; (v) up to 783,564 2022 Note Conversion Pre-Funded Warrant Shares; (vi) up to 821 2022 Placement Agent Warrant Shares; (vii) 418,040 Bridge Shares; (viii) up to 2,349,826 Common Warrant Shares; (ix) up to 756,871 Bridge Pre-Funded Warrant Shares; (x) up to 20,000,286 Uplist Conversion Warrant Shares; (xi) up to 8,224,341 True-Up Shares; (xii) up to 8,224,341 True-Up Pre-Funded Warrant Shares; (xiii) up to 1,716,780 PIPE Investor Warrant Shares; and (xiv) up to 1,716,780 PIPE Pre-Funded Warrant Shares.
Common Stock outstanding prior to the offering	586,195 (as of October 25, 2023)
Common Stock to be outstanding after the offering(1):	34,602,869
Use of proceeds	We will not receive any of the proceeds from the sale or other disposition of shares of our Common Stock by the selling stockholders. We may receive proceeds upon exercise for cash of the 2022 Warrants, 2022 Note Conversion Pre-Funded Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants in which case such proceeds will be used for general working capital purposes. However, each of the aforementioned warrants contains a cashless exercise provision.
Market for common stock:	Our Common Stock is traded on the QB tier of the OTC Marketplace ("**OTCQB**") under the symbol "ARTH". On November 7, 2023, the closing price of our Common Stock was $6.40 (post-split) per share.
Risk Factors	See "**Risk Factors**" beginning on page 13 and other information in this prospectus for a discussion of the factors you should consider before you decide to invest in our Common Stock.

(1) Assumes (a) the full exercise of the 2022 Warrants, 2022 Placement Agent Warrants, Bridge Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants True-Up Pre-Funded Warrants; (b) the Automatic Conversion of 50% of the face amount of the 2022 Notes into the maximum amount of Automatic Conversion Shares, and no issuance of any 2022 Note Conversion Pre-Funded Warrants; (c) the issuance of the Exchange Investor Warrants and cancellation of the Common Warrants at the closing of the Uplist Transaction; (d) the conversion of the remaining 50% of the outstanding amount of the 2022 Notes into 783,564 Conversion Shares at the conversion price of $4.00 (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE) per share and (e) the expected issuance at the closing of the Primary Offering of 2,528,812 True-Up Shares and True-Up Pre-Funded Warrants to purchase an aggregate of 5,695,529 shares of Common Stock (such allocation between True-Up Shares and True-Up Pre-Funded Warrants being an initial estimate based on indications of interest and being subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and the Primary Offering). Common Stock outstanding as of October 25, 2023 excludes: (i) options granted to employees, directors and consultants under our 2013 Stock Incentive Plan (the "**2013 Plan**") to purchase up to an aggregate of 12,613 shares of Common Stock at exercise prices ranging from $32.00 to $1,040.00 per share and with a weighted average exercise price of $300.43 per share; (ii) 3,285,387 shares of Common Stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of $8.77 per share (which includes 2,349,826 Common Warrants that will automatically be cancelled and exchanged for 7,049,447 Exchange Investor Warrants at the closing of the Primary Offering); (iii) Series 2 Convertible Notes convertible into 6,615 shares of Common Stock at a conversion price of $400.00 per share; (iv) 1,567,127 shares of Common Stock issuable upon conversion of the 2022 Notes at the conversion price of $4.00 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (v) 1,716,780 shares of Common Stock to be issuable upon exercise at $0.001 per share of the PIPE Pre-Funded Warrants expected to be issued immediately prior to the pricing of the Primary Offering; (vi) 1,716,780 shares of Common Stock to be issuable upon exercise at $4.00 per share of the PIPE Investor Warrants expected to be issued immediately prior to the pricing of the Primary Offering; (vii) 85,839 shares of Common Stock to be issuable upon exercise at $5.15625 per share of the PIPE Placement Agent Warrants expected to be issued immediately prior to the pricing of the Primary Offering; (viii) 2,528,812 True-Up Shares expected to be issued at the closing of the Primary Offering; (ix) 5,695,529 shares of Common Stock to be issuable upon exercise at $0.001 of the True-Up Pre-Funded Warrants expected to be issued at the closing of the Primary Offering; (x) 20,000,286 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Uplist Conversion Warrants expected to be issued at the closing of the Primary Offering; (xi) 7,049,447 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Exchange Investor Warrants expected to be issued at the closing of the Primary Offering; (xii) 56,896 shares of Common Stock reserved for future issuance under the 2023 Plan; and (xiii) up to 1,030,303 shares (1,184,848 shares if the underwriters' option to purchase additional Investor Warrants is exercised in full) of Common Stock issuable upon exercise at $4.00 per share of the Investor Warrants to be issued in the Primary Offering.

RISK FACTORS

Investment in our securities involves a high degree of risk. You should carefully consider the risks that are summarized below and discussed in greater detail in the following pages, together with the other information contained in this prospectus, including our financial statements and the related notes appearing at the end of this prospectus, before making an investment decision. If any of the following risks and uncertainties actually occur, our business, financial condition, and results of operations could be negatively impacted, and you could lose all or part of your investment.

Risk Factor Summary

- There is is substantial doubt about our ability to continue as a going concern, and we believe that our current cash on hand as of October 25, 2023 is not sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate the business.
- We have incurred significant losses since inception, we expect to continue to incur losses for the foreseeable future, and we may not generate sufficient revenue to achieve or maintain profitability.
- We will need to raise additional capital, which may not be available to us on acceptable terms, or at all. In addition, the terms of our previous financings could impose additional challenges on our ability to raise funding in the future.
- Our obligations under the First Notes, including our obligation to repay the outstanding balance under the First Notes upon such holder's demand for repayment upon the completion of an Uplist Transaction, are secured by security interests in substantially all of our assets and our failure to comply with the terms and covenants of the First Notes could result in our loss of substantially all of our assets.
- The holders of our 2022 Notes have certain additional rights upon an event of default under such notes, which could harm our business, financial condition, and results of operations and could require us to reduce or cease our operations.
- If we issue additional shares in the future, including issuances of shares upon exercise of our outstanding warrants or conversion of our outstanding convertible notes, our existing stockholders will be significantly diluted and our stock price may be negatively affected.
- If we do not successfully market our products, we will continue to incur losses and will never be profitable.
- Our business may be materially adversely affected by the coronavirus (COVID-19) pandemic. Should the pandemic or its aftereffects continue, our business operations could and will likely be delayed or interrupted.
- Our flagship product is novel without any history of use in the clinical fields in which it is marketed requiring education and training regarding its application to gain and maintain market acceptance by patients, physicians, healthcare payors or others in the medical community.
- Applications for regulatory marketing authorization for commercialization of our additional products or elements of our supply chain may not be accepted, or if accepted, may be voluntarily withdrawn or eventually rejected, and the future success of our business is significantly dependent on the success of our being able to obtain regulatory marketing authorization for our development stage candidates.
- Our additional product candidates are inherently risky because they are based on novel technologies and thus create significant challenges with respect to product development and optimization, engineering, manufacturing, scale-up, quality systems, pre-clinical in vitro and in vivo testing, government regulation and approval, third-party reimbursement and market acceptance.

- Any changes in our supply chain, including to the third-party contract manufacturers, service providers, or other vendors, or in the processes that they employ, could adversely affect us.
- If the FDA or similar foreign agencies or intermediaries impose requirements more onerous than we anticipate, our business could be adversely affected.
- We are subject to extensive and dynamic medical device regulations outside of the United States, which may impede or hinder the approval, marketing authorization or sale of our products and, in some cases, may ultimately result in an inability to obtain approval of certain products or may result in the recall or seizure of previously approved or authorized products.
- Any clinical trials that are planned or are conducted on our flagship product or additional product candidates may not start or may fail. Clinical trials are lengthy, complex and extremely expensive processes with uncertain expenditures and results and frequent failures.
- We cannot market and sell any additional product candidate in the United States or in any other country or region if we fail to obtain the necessary marketing authorization, clearances or certifications from applicable government agencies.
- The flagship product for which we obtained required regulatory marketing authorization is subject to post-approval regulation, and we may be subject to penalties if we fail to comply with such post-approval requirements.
- Use of third parties to manufacture our product and our additional product candidates may increase the risk that preclinical development, clinical development and potential commercialization of our product candidates could be delayed, prevented or impaired.
- We face competition from companies that have greater resources than we do, and we may not be able to effectively compete against these companies.
- If others claim we and/or the parties from whom we license some of our intellectual property are infringing on their intellectual property rights, we may be subject to costly and time-consuming litigation.
- There is not now, and there may not ever be, an active market for our Common Stock, which trades in the over-the-counter market in low volumes and at volatile prices. Although we have applied to list our Common Stock on the Nasdaq Capital Market there is no assurance that our application will be approved.
- Even if the Primary Offering is successful and our application to list our Common Stock and Investor Warrants on the Nasdaq Capital Market or an Alternate Exchange is approved, no assurance can be given that an active trading market for our Common Stock or Investor Warrants will develop or be maintained.

 For purposes herein, references to regulatory approval and marketing authorization may be used interchangeably.

Risks Related to our Business, Financial Position and Capital Requirements

There is substantial doubt about our ability to continue as a going concern. Even if the Primary Offering is successful, we will need additional funding to continue our operations and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail.

We have only recently commenced commercial sales of our first product, AC5 Advanced Wound System, and we have incurred substantial net losses as a result. We do not believe that our current cash on hand as of October 25, 2023 is sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. Even if the Primary Offering is successful, we will need to secure additional resources to support our continued operations.

We have obtained additional cash from debt and equity financings during the last several fiscal quarters to continue operations and fund our planned future operations, which include research and development of our product candidates, steps related to seeking regulatory marketing authorization for our initial product candidates, and planning for their commercialization in the U.S. and Europe. Even with the additional funds received from these financings, there exists substantial doubt about our ability to continue as a going concern. In addition, our plans may change and/or we may use our capital resources more rapidly than we currently anticipate. We presently expect that our expenses will increase in connection with our ongoing activities to support our business operations, inclusive of regulatory submissions, marketing authorization, and commercialization of our product candidates and products, and, therefore, we will require additional funding.

Our future capital requirements will depend on many factors, including:

- the success of our marketing efforts;
- the success of our additional commercialization efforts;
- the scope, progress and results of our research and development collaborations;
- the extent of potential direct or indirect grant funding for our research and development activities;
- the scope, progress, results, costs, timing and outcomes of any regulatory process and clinical trials conducted for any of our product candidates;
- the timing of entering into, and the terms of, any collaboration agreements with third parties relating to any of our product candidates;
- the timing of and the costs involved in obtaining regulatory marketing authorization for our product candidates;
- the costs of operating, expanding and enhancing our operations to support our clinical activities and, if our product candidates are approved, commercialization activities;
- the costs of maintaining, expanding and protecting our intellectual property portfolio, including potential litigation costs and liabilities;
- the costs associated with maintaining and expanding our product pipeline;
- the costs associated with expanding our geographic focus;
- operating revenues, if any, received from sales of our product candidates, if any are approved by the FDA or other applicable regulatory agencies;
- the cost associated with being a public company, including obligations to regulatory agencies, and increased investor relations and corporate communications expenses; and
- the costs of additional general and administrative personnel, including accounting and finance, legal and human resources employees.

We intend to obtain additional financing for our business through public or private securities offerings, the incurrence of additional indebtedness, or some combination of those sources. We may also seek funding through collaborative arrangements with strategic partners if we determine them to be necessary or appropriate, although these arrangements could require us to relinquish rights to our technology or product candidates and could result in our receipt of only a portion of any revenues associated with the partnered product. We cannot provide any assurance that additional financing from these sources will be available on favorable terms, if at all.

In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA, PIPE SPA and the 2022 Notes SPA, associated with the 2022 Notes Financing, in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future***" below.

These restrictions and provisions could make it more challenging for us to raise capital through the incurrence of additional debt or through future equity issuances. Further, if we do raise capital through the sale of equity, or securities convertible into equity, the ownership of our then existing stockholders would be diluted, which dilution could be significant depending on the price at which we may be able to sell our securities. Also, if we raise additional capital through the incurrence of indebtedness, we may become subject to covenants restricting our business activities, and the holders of debt instruments may have rights and privileges senior to those of our equity investors. Finally, servicing the interest and principal repayment obligations under any debt facilities that we may enter into in the future could divert funds that would otherwise be available to support research and development, clinical or commercialization activities.

If we are unable to obtain adequate financing on a timely basis or on acceptable terms in the future, we would likely be required to delay, reduce or eliminate one or more of our product development activities, which could cause our business to fail.

We have incurred significant losses since inception. We expect to continue to incur losses for the foreseeable future, and we may never increase revenue or achieve or maintain profitability.

As noted above under the risk factor entitled "***There is substantial doubt about our ability to continue as a going concern***," we have only recently commenced commercial sales of our first product, AC5 Advanced Wound System, and we have incurred substantial net losses as a result. Consequently, we have incurred losses in each year since our inception and we expect that losses will continue to be incurred in the foreseeable future in the operation of our business. To date, we have financed our operations primarily through equity and debt investments by founders, other investors and third parties, and we expect to continue to rely on these sources of funding, to the extent available in the foreseeable future. Losses from operations have resulted principally from costs incurred in research and development programs and from general and administrative expenses, including significant costs associated with establishing and maintaining intellectual property rights, significant legal and accounting costs incurred in connection with both the closing of the Merger and complying with public company reporting and control obligations, and personnel expenses. In addition, we expect to continue to incur additional general and administrative expenses due to the costs associated with being a public company, including obligations to regulatory agencies, and increased investor relations and corporate communications expenses. We have devoted much of our operational effort to date to the research and development of our core technology, including selecting our initial product composition, conducting safety and other related tests, conducting a human trial for safety and performance, developing methods for manufacturing scale-up, reproducibility and validation, and developing and protecting the intellectual property rights underlying our technology platform. We have recently devoted substantially all of our operational effort to continue the ongoing commercialization and market adoption of AC5 Advanced Wound System, our first product.

We expect to continue to incur significant expenses and anticipate that those expenses and losses may increase in the foreseeable future as we:

- commercialize AC5 Advanced Wound System;
- develop our additional product candidates, and the underlying technology, including advancing applications and conducting biocompatibility and other preclinical studies and clinical studies;
- raise capital needed to fund our operations;
- enhance investor relations and corporate communications capabilities;
- conduct clinical trials on products and product candidates;
- attempt to obtain regulatory marketing authorizations for product candidates;
- build relationships with additional contract manufacturing partners, and invest in product and process development through such partners;
- maintain, expand and protect our intellectual property portfolio;
- advance additional product candidates and technologies through our research and development pipeline;
- seek to market selected product candidates, which may require regulatory marketing authorization; and
- hire additional regulatory, clinical, quality control, scientific, financial, and management, consultants and advisors.

To become and remain profitable, we must successfully market AC5 Advanced Wound System and succeed in developing and eventually commercializing other product candidates with significant market potential. This will require us to be successful in a number of challenging activities, including successfully completing preclinical testing and clinical trials of product candidates, obtaining regulatory marketing authorization for our product candidates and manufacturing, marketing and selling any products for which we have or may obtain marketing authorization. We are only in the preliminary stages of many of those activities. We may never succeed in those activities and may never generate sufficient operating revenues to achieve profitability. Even if we do generate operating revenues sufficient to achieve profitability, we may not be able to sustain or increase profitability. Our failure to generate sufficient operating revenues to become and remain profitable would impair our ability to raise capital, expand our business or continue our operations, all of which would depress the price of our Common Stock. A further decline or lack of increase in the price of our Common Stock could cause our stockholders to lose all or a part of their investment in the Company.

The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future.

The Bridge SPA contains certain restrictions on the Company's ability to conduct subsequent sales of its equity securities and certain business activities. In particular, until July 7, 2024, the Company will be prohibited from effecting or entering into agreements to effect any issuance by the Company, or any of its subsidiaries, of Common Stock or Common Stock equivalents (or a combination of units thereof) involving a variable rate transaction. The Uplist PIPE has the effect of extending that prohibition to November 8, 2024 with a similar provision.

The 2022 Notes SPA contains certain restrictions on our ability to conduct subsequent sales of our equity securities and certain business activities. In particular, until the 2022 Notes are paid in full and/or converted in full and the 2022 Warrants are exercised in full, we are prohibited from (i) changing the nature of business, (ii) selling, divesting, acquiring, or changing the structure of any material assets other than in the ordinary course of business; or (iii) negotiating or entering into certain variable rate debt transactions; in each instance without each applicable 2022 Note holder's prior written consent, which shall not be unreasonably withheld. In addition, the 2022 Notes, as amended, prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Our obligations under the First Notes are secured by security interests in substantially all of our assets and our failure to comply with the terms and covenants of the First Notes could result in our loss of substantially all of our assets.

Our obligations under the First Notes and the related transaction documents are secured by a security interest in substantially all of our assets. As a result, if we default on our obligations under such First Notes, the First Note holders could foreclose on the security interests and liquidate some or all of our assets, which would harm our business, financial condition and results of operations and could require us to reduce or cease operations.

In connection with the First Closing, the First Note holders were granted a security interest in substantially all of our assets pursuant to the terms of the Security Agreement. If we fail to make payments on the First Notes when due or otherwise comply with the covenants contained in the First Notes, the First Note holders could declare us in default, in which event such holders would have the right to exercise their rights as a secured creditor with respect to our assets that secure the indebtedness, which would force us to suspend operations.

In addition, the 2022 Notes contain customary events of default, which include, among other things, (i) our failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our insolvency; (iii) delisting of our Common Stock; (iv) our breach of any material covenant or other material term or condition under the 2022 Notes; and (v) our breach of any representations or warranties under the 2022 Notes which cannot be cured within five (5) days. Further, events of default under the 2022 Notes also include (i) the unavailability of Rule 144 at certain times; (ii) our failure to deliver the shares of Common Stock to the 2022 Note holder upon exercise by such holder of its conversion rights under the 2022 Notes; (iii) our loss of the "bid" price for our Common Stock and/or a market and such loss is not cured during the specified cure periods; and (iv) our failure to complete an Uplist Transaction by November 15, 2023.

The 2022 Note holders have certain additional rights upon an event of default under such notes, which could harm our business, financial condition, and results of operations and could require us to reduce or cease our operations.

Under the 2022 Notes, the holders have certain rights upon an event of default. Such rights include that, upon an event of default, the 2022 Notes will become immediately due and payable and we will be obligated to pay to each such note holder an amount equal to the Default Premium multiplied by the sum of the outstanding principal amount of such notes plus any accrued and unpaid interest on the unpaid principal amount of such notes to the date of payment, plus any Default Interest and any other amounts owed to the holder under the SPA, or the Default Amount; *provided that*, upon any subsequent event of default not in connection with the first event of default, such holder shall be entitled to an additional 5% to the Default Premium for each subsequent event of default. At the election of each 2022 Note holder, the Default Amount may be paid in cash or shares of Common Stock equal to the Default Amount divided by the $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision)at the time of payment.

In addition, the 2022 Notes are subject to prepayment penalties, subject to adjustment as a result of certain time-based prepayment premiums set forth in such notes; provided, that, the written consent of the lead investor is not required in connection with a prepayment made from the proceeds of an Uplist Transaction. The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from July 6, 2022 until such notes become due and payable on the Maturity Date or upon their conversion, acceleration or by prepayment. Any amount of principal or interest on the 2022 Notes which is not paid when due will bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the Default Interest.

We may not have sufficient funds to pay the Default Amount and, as described above, this could trigger rights under the security interest granted to the holders and result in the foreclosure of their security interests and liquidation of some or all of our assets. The exercise of any of these rights upon an event of default could substantially harm our financial condition, substantially dilute our other stockholders and force us to reduce or cease operations and cause our stockholders to lose all or a part of their investment in the Company.

General economic factors may adversely affect our financial performance.

General economic conditions may adversely affect our financial performance. In the United States, changes in interest rates, changes in fuel and other energy costs, weakness in the housing market, inflation or deflation or expectations of either inflation or deflation, higher levels of unemployment, decreases in discretionary consumer spending or consumer demand, unavailability or limitations of consumer credit, higher consumer debt levels or efforts by consumers to reduce debt levels, higher tax rates and other changes in tax laws, overall economic slowdown, changes in consumer desires affecting demand for the products we sell and other economic factors could adversely affect consumer demand for the products we sell, change the mix of products we sell to a mix with a lower average gross margin and result in slower inventory turnover. Higher interest rates, transportation costs, inflation, higher costs of labor, insurance and healthcare, foreign exchange rates fluctuations, higher tax rates and other changes in tax laws, changes in other laws and regulations and other economic factors in the United States or internationally can increase our cost of sales and operating, selling, general and administrative expenses, decrease sales, and otherwise adversely affect our operations and operating results. These factors affect not only our operations, but also the operations of suppliers from whom we purchase goods and services, a condition that can result in an increase in the cost to us of the goods we sell to customers.

The COVID-19 pandemic could continue to affect our suppliers and employees, and cause disruptions in current and future plans for operations and expansion.

The COVID-19 pandemic may continue to directly and indirectly adversely impact our business, financial condition and operating results. The extent to which this will continue will depend on numerous evolving factors that are highly uncertain, rapidly changing and cannot be predicted with precision or certainty at this time.

Our business may continue to be disrupted due to the costs incurred as a result of additional necessary actions and preparedness plans to help ensure the health and safety of our employees and continued operations, including enhanced cleaning processes, protocols designed to implement appropriate social distancing practices, and/or adoption of additional wage and benefit programs to assist employees. We also cannot predict the effect of the COVID-19 pandemic on our supply chain's reliability and costs.

In addition, our business and operations, and the operations of our suppliers, may continue to be adversely affected by the COVID-19 pandemic. The pandemic, including the related response, could cause disruptions due to potential suspension or slowdown of activities at our third-party suppliers, manufacturing delays, or increased prices implemented by our suppliers. The COVID-19 pandemic has disrupted nearly every aspect of the global supply chain, including the manufacturing or delivery of some of the key supplies used in our tests. We currently utilize third parties to, among other things, manufacture raw materials. If any third party involved in the production of our products, product candidates, or raw materials is adversely impacted by restrictions resulting from the coronavirus outbreak, our supply chain may be disrupted, limiting our ability to manufacture products for research and development operations, clinical trials and, in the case of AC5 Advanced Wound System) and AC5 Topical Hemostat, commercialization.

Finally, while we believe that we currently have sufficient supply of our products to continue commercialization efforts, our products and product candidates or the materials contained therein (such as the Active Pharmaceutical Ingredients ("**APIs**") for our AC5 product line) are manufactured from facilities in areas impacted by the coronavirus, which could result in shortages due to ongoing efforts to address the outbreak. If any of the foregoing were to occur, it could materially adversely affect our future revenues, financial condition, profitability, and cash flows.

Unfavorable global political or economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The global credit and financial markets have experienced severe volatility and disruptions in the past several years. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including our ability to raise additional capital when needed on acceptable terms, if at all. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services.

Geopolitical conflicts could potentially affect our sales and disrupt our operations and could have a material adverse impact on the Company.

Geopolitical conflicts, including the recent war in Ukraine, could adversely impact our operations or those of our customers. The extent to which these events impact our operations and those of our customers will depend on future developments, which are highly uncertain and cannot be predicted with confidence. If the uncertainty surrounding geopolitical conflicts and in the global marketplace continues, or if we, or any of our customers encounter any disruptions to our or their respective operations or facilities, then we or they may be prevented or delayed from effectively operating our or their business, respectively, and the marketing and sale of our products and our financial results could be adversely affected.

Russia's invasion and military attacks on Ukraine have triggered significant sanctions from North American and European leaders. These events are currently escalating and creating increasingly volatile global economic conditions. Related sanctions, export controls or other actions have been or may in the future be initiated by nations including the United States, the European Union or Russia (e.g., potential cyberattacks, disruption of energy flows, etc.), which could adversely affect our business and/or our supply chain and other third parties with whom we conduct business. Furthermore, the current military conflict between Russia and Ukraine could disrupt or otherwise adversely impact our operations and those of third parties upon which we rely. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Our operating history may hinder our ability to successfully meet our objectives.

We are transitioning from being strictly a development stage company subject to the risks, uncertainties and difficulties frequently encountered by early-stage companies in evolving markets to a combination commercial stage and development stage company. Our operations to date have been primarily limited to organizing and staffing, developing and securing our technology and undertaking funding preclinical studies of our lead product candidates, and funding one clinical trial. We have not demonstrated our ability to successfully complete large-scale, pivotal clinical trials, reliably obtain regulatory marketing authorizations, manufacture a commercial scale product or arrange for a third-party to do so on our behalf, and we have only recently begun to generate revenue from commercial sales of our first product, AC5 Advanced Wound System, and there can be no assurance that we will be successful in generating increased revenue.

Because of our limited operating history, we have limited insight into trends that may emerge and affect our business, and errors may be made in developing an approach to address those trends and the other challenges faced by development stage companies. Failure to adequately respond to such trends and challenges could cause our business, results of operations and financial condition to suffer or fail. Further, our limited operating history may make it difficult for our stockholders to make any predictions about our likelihood of future success or viability.

If we are not able to attract and retain qualified management and scientific personnel, we may fail to develop our technologies and product candidates.

Our future success depends to a significant degree on the skills, experience and efforts of the principal members of our scientific and management personnel. These members include Terrence Norchi, MD, our President and Chief Executive Officer. The loss of Dr. Norchi or any of our other key personnel could harm our business and might significantly delay or prevent the achievement of research, development or business objectives. Further, our operation as a public company will require that we attract additional personnel to support the establishment of appropriate financial reporting and internal controls systems. Competition for personnel is intense. We may not be able to attract, retain and/or successfully integrate qualified scientific, financial and other management personnel, which could materially harm our business.

If we fail to properly manage any growth we may experience, our business could be adversely affected.

We anticipate increasing the scale of our operations as we seek to develop our product candidates, including hiring and training additional personnel and establishing appropriate systems for a company with larger operations. The management of any growth we may experience will depend, among other things, upon our ability to develop and improve our operational, financial and management controls, reporting systems and procedures. If we are unable to manage any growth effectively, our operations and financial condition could be adversely affected.

We have identified material weaknesses in our internal control over financial reporting. These material weaknesses could continue to adversely affect our ability to report our results of operations and financial condition accurately and in a timely manner. If we fail to enhance appropriate internal controls in the future, we may not be able to report our financial results accurately, which may adversely affect our stock price and our business

Our management is responsible for establishing and maintaining adequate internal control over financial reporting designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the generally accepted accounting principles generally accepted in the United States of America ("**GAAP**"). As a public company, we are required, on a quarterly basis, to evaluate the effectiveness of our internal controls and to disclose any changes and material weaknesses identified through such evaluation in those internal controls. Our efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and the related regulations regarding our required assessment of our internal controls over financial reporting requires the commitment of significant financial and managerial resources. Internal control over financial reporting has inherent limitations, including human error, the possibility that controls could be circumvented or become inadequate because of changed conditions, and fraud.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Our management identified material weaknesses in our internal control over financial reporting relating to a lack of sufficient resources with an understanding of the technical guidance under GAAP related to accounting for complex financial instruments within the 2022 Notes and certain accounting practices relating to the recording of the insurance premium advanced by a third party. As a result of these material weaknesses, our management concluded that our internal control over financial reporting was not effective as of September 30, 2022.

We are working to remediate the material weaknesses as efficiently and effectively as possible. Accordingly, the Audit Committee in consultation with management has determined that these matters may be best addressed by: (i) reviewing accounting literature and other technical materials to ensure that the appropriate personnel have a full awareness and understanding of the applicable accounting pronouncements and how they are to be implemented; (ii) additional education on new and existing accounting pronouncements and their application and (iii) requiring senior accounting staff and outside consultants with technical accounting experience to review complex transactions to evaluate and approve the accounting treatment of such transactions. Accordingly, the Board has recommended to management and management has agreed that the Company's accounting staff, including its Chief Financial Officer, undertake additional training on an accelerated basis and that such training, in view of the complexity of certain generally accepted accounting principles and other matters be ongoing and engage third party specialists on an as-needed basis to help supplement the Company's internal resources.

If we are unable to enhance effective internal controls, we may not have adequate, accurate or timely financial information, and we may be unable to meet our reporting obligations as a publicly traded company or comply with the requirements of the SEC or the Sarbanes-Oxley Act of 2002. This could result in a restatement of our financial statements, the imposition of sanctions, including the inability of registered broker dealers to make a market in our stock, or investigation by regulatory authorities, all of which is exacerbated by the recent determination of a material weakness related to our internal controls over financial reporting as disclosed herein. Any such action or other negative results caused by our inability to meet our reporting requirements or comply with legal and regulatory requirements or by disclosure of an accounting, reporting or control issue could adversely affect the trading price of our stock and our business.

We rely significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm our ability to operate our business effectively.

We maintain sensitive data pertaining to our Company on our computer networks, including information about our research and development activities, our intellectual property and other proprietary business information. Our internal computer systems and those of third parties with which we contract may be vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures, despite the implementation of security measures. System failures, accidents or security breaches could cause interruptions to our operations, including material disruption of our research and development activities, result in significant data losses or theft of our intellectual property or proprietary business information, and could require substantial expenditures to remedy. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications or inappropriate disclosure of confidential or proprietary information, we could incur liability and our research and development programs could be delayed, any of which would harm our business and operations.

Legal, political and economic uncertainty surrounding the exit of the United Kingdom from the European Union is a source of instability and uncertainty.

Legal, political and economic uncertainty surrounding the exit of the United Kingdom from the European Union ("**Brexit**") is a source of instability and uncertainty.

The uncertainty concerning the U.K's legal, political and economic relationship with the E.U. after the transition period may be a source of instability in the international markets, create significant currency fluctuations, and/or otherwise adversely affect trading agreements or similar cross-border co-operation arrangements (whether economic, tax, fiscal, legal, regulatory or otherwise).

These developments, or the perception that any of them could occur, have had, and may continue to have, a significant adverse effect on global economic conditions and the stability of global financial markets, and could significantly reduce global market liquidity and limit the ability of key market participants to operate in certain financial markets. In particular, it could also lead to a period of considerable uncertainty in relation to the U.K. financial and banking markets, as well as on the regulatory process in Europe. Asset valuations, currency exchange rates and credit ratings may also be subject to increased market volatility.

If the U.K. and the E.U. are unable to negotiate acceptable trading and customs terms or if other E.U. Member States pursue withdrawal, barrier-free access between the U.K. and other E.U. Member States or among the European Economic Area ("**E.E.A.**") overall could be diminished or eliminated. The long-term effects of Brexit will depend on any agreements (or lack thereof) between the U.K. and the E.U. and, in particular, any arrangements for the U.K. to retain access to E.U. markets after the transition period. Such a withdrawal from the E.U. is unprecedented, and it is unclear how the U.K. access to the European single market for goods, capital, services and labor within the E.U., or single market, and the wider commercial, legal and regulatory environment, will impact our U.K. operations.

We may also face new regulatory costs and challenges that could have an adverse effect on our operations and development programs. For example, the U.K. could lose the benefits of global trade agreements negotiated by the E.U. on behalf of its members, which may result in increased trade barriers that could make our doing business in the E.U. and the E.E.A. more difficult. There may continue to be economic uncertainty surrounding the consequences of Brexit, which could adversely affect our financial condition, results of operations, cash flows and market price of our Common Stock.

Risks Related to the Development and Commercialization of our Product Candidates

The commercial success of AC5 Advanced Wound System will depend upon the degree of its market acceptance by patients, physicians, healthcare payors and others in the medical community. If AC5 Advanced Wound System does not achieve an adequate level of market acceptance, we may not generate sufficient revenues to achieve or maintain profitability.

AC5 Advanced Wound System is a novel use in the clinical fields in which it is marketed and may not gain or maintain market acceptance by patients, physicians, healthcare payors or others in the medical community. Additionally, we believe that we will need to educate physicians and other healthcare providers about AC5 Advanced Wound System in order to for these providers to administer AC5 Advanced Wound System. If we are unsuccessful in educating these practitioners about AC5 Advanced Wound System, we do not expect to achieve an appropriate level of market acceptance for AC5 Advanced Wound System. We could incur substantial and unanticipated additional expense in an effort to increase market acceptance, which would increase the cost of commercializing AC5 Advanced Wound System and could limit its commercial success and result in lower-than-expected revenues. We believe the degree of market acceptance of AC5 Advanced Wound System will depend on a number of factors, including:

- its efficacy and potential advantages over other treatments,
- the extent to which physicians are successful in treating patients with other products or treatments,
- the extent to which physicians and patients experience similar or improved clinical results to that reported on the approved product labeling,
- market acceptance of the cost at which we sell AC5 Advanced Wound System,
- the timing of the release of competitive products or treatments,
- our marketing and sales resources, the quantity of our supplies of AC5 Advanced Wound System and our ability to establish a distribution infrastructure for AC5 Advanced Wound System, and
- whether third-party and government payors cover or reimburse for AC5 Advanced Wound System, and if so, to what extent and in what amount.

If market acceptance of AC5 Advanced Wound System is adversely affected by any of these or other factors, then sales of AC5 Advanced Wound System may be reduced and our business will be materially harmed.

We are seeking reimbursement arrangements with privately managed care organizations and government payors and additional third-party payors. If we are unable to obtain adequate reimbursement from third-party payors, or acceptable prices, for AC5 Advanced Wound System, our revenues and prospects for profitability will suffer.

Our future revenues and ability to become profitable will depend heavily upon the availability of adequate reimbursement for the use of AC5 Advanced Wound System from government-funded and private third-party payors. Reimbursement by a third-party payor depends on a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan,
- safe, effective and medically necessary,
- appropriate for the specific patient,
- cost effective, and
- neither experimental nor investigational.

Obtaining reimbursement approval for AC5 Advanced Wound System from each government-funded and private third-party payor is a time-consuming and costly process, which in some cases requires us to provide to the payor supporting scientific, clinical and cost-effectiveness data for AC5 Advanced Wound System's use. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement.

Even when a third-party payor determines that a product is generally eligible for reimbursement, third-party payors may impose coverage limitations that preclude payment for some product uses that are approved by the FDA or similar authorities or impose patient co-insurance or co-pay amounts that may result in lower market acceptance and which would lower our revenues. Some payors establish prior authorization programs and procedures requiring physicians to document several different parameters, which may impede patient access to therapy. Moreover, eligibility for coverage does not necessarily mean that AC5 Advanced Wound System will be reimbursed in all cases or at a rate that allows us to sell AC5 Advanced Wound System at an acceptable price adequate to make a profit or even cover our costs. If we are not able to obtain coverage and adequate reimbursement promptly from third-party payors for AC5 Advanced Wound System, our ability to generate revenues and become profitable will be compromised.

The scope of coverage and payment policies varies among private third-party payors, including indemnity insurers, employer group health insurance programs and managed care plans. These third-party payors may base their coverage and reimbursement on the coverage and reimbursement rate paid by carriers for Medicare beneficiaries, which are traditionally at a substantially discounted rate. Furthermore, many such payors are investigating or implementing methods for reducing healthcare costs, such as the establishment of capitated or prospective payment systems. Cost containment pressures have led to an increased emphasis on the use of cost-effective products by healthcare providers. If third-party payors do not provide adequate coverage or reimbursement for AC5 Advanced Wound System, it could have a negative effect on our revenues, results of operations and liquidity.

Applications for regulatory marketing authorization for commercialization of our additional product candidates or elements of our supply chain may not be accepted, or if accepted, may be voluntarily withdrawn or eventually rejected, and the future success of our business is significantly dependent on the success of our being able to obtain regulatory marketing authorization for our development stage candidates.

For example, on July 17, 2017, we filed a 510(k) notification with the FDA for AC5 Topical Gel. As previously announced on December 18, 2017, we voluntarily withdrew the submission after receiving a communication from the FDA near the end of the agency's 90-day review period for a final decision on 510(k) notifications. The communication contained questions for which a comprehensive response could not be provided in the limited review time remaining on the submission. Given that it was not possible to respond in the time available, the Company made the decision to withdraw the 510(k) notification but noted at the time that it remained committed to continued collaboration with the FDA to appropriately address the outstanding questions and planned to submit a new 510(k) notification as soon as possible following further discussion with the agency. On March 12, 2018, we announced that we were utilizing the FDA's pre-submission process to submit a proposed development strategy to the FDA to address the agency's comments on our 510(k) notification. As indicated in that March 12, 2018, announcement, we determined that providing additional data to the FDA would be the most expeditious path forward for addressing the FDA's comments, subject to any further comments that we may receive from the FDA.

On May 8, 2018, we announced that the Company would initiate the previously disclosed study designed to address FDA comments on Arch's previous 510(k) notification for our AC5 Topical Gel. The agency provided feedback via the pre-submission process and indicated that the proposed study design was acceptable to support our future marketing application. On June 15, 2018, we further announced that we completed enrollment for our human skin sensitization study and that applications of our AC5 Topical Gel were underway for all subjects.

On October 1, 2018, we announced that the Company submitted a 510(k) notification to the FDA for our AC5 Topical Gel (AC5) and received acknowledgment from the FDA that the submission has been received. On December 17, 2018, we announced that the 510(k) premarket notification for AC5 Topical Gel has been reviewed and cleared by the FDA.

Our business plan is dependent on the success of our development stage product candidates.

Our business is currently focused almost entirely on the development and commercialization of our initial product candidates and products ("**AC5 Devices**"). Our reliance on AC5 Devices means that, if we are not able to obtain both regulatory marketing authorization and market acceptance of those product candidates, our chances for success will be significantly reduced. We are also less likely to withstand competitive pressures if any of our competitors develop and obtain regulatory marketing authorization for similar products or for products that may be more attractive to the market. Our current dependence on AC5 Devices increases the risk that our business will fail if our development efforts for those products experience delays or other obstacles or are otherwise not successful.

The Chemistry, Manufacturing and Control ("CMC") process for our commercial product and product candidates may be challenging.

Because of the complexity of our lead product candidates, the CMC process, including but not limited to product scale-up activities and cGMP manufacturing for human use, may be difficult to complete successfully within the parameters required by the FDA or its foreign counterparts. Peptide formulation optimization is particularly challenging, and any delays could negatively impact our ability to conduct clinical trials and our subsequent commercialization timeline. Furthermore, we have, and the third parties with whom we may establish relationships may also have, limited experience with attempting to commercialize a self-assembling peptide as a medical device, which increases the risks associated with completing the CMC process successfully, on time, or within the projected budget. Failure to complete the CMC process successfully would impact our ability to complete product development activities, such as conducting clinical trials and submitting applications for regulatory approval, which could affect the long-term viability of our business.

Our AC5 Devices are inherently risky because they are based on novel technologies.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of AC5 Devices creates significant challenges with respect to product development and optimization, engineering, manufacturing, scale-up, quality systems, pre-clinical in vitro and in vivo testing, government regulation and approval, third-party reimbursement and market acceptance. Our failure to overcome any one of those challenges could harm our operations, commercialization efforts, ability to complete additional clinical trials, and overall chances for success.

Any changes in our supply chain, including to the third-party contract manufacturers, service providers, or other vendors, or in the processes that they employ could adversely affect us.

We are dependent on third parties in our supply chain, including manufacturers, service providers, and other vendors, and the processes that they employ to make major and minor components of our products, and this dependence exposes us to risks associated with regulatory requirements, delivery schedules, manufacturing capability, quality control, quality assurance and costs. We make periodic changes within our supply chain, for example, as our business needs evolve; and/or if a third party does not perform as agreed or desired; and/or if we decide to add an additional manufacturer, service provider, or vendor where we were previously single sourced; and/or if processes are altered to meet evolving scale requirements. For instance, the Company harmonized its U.S. and European product supply chains by adding a supplier and additional manufacturing processes to the list of approved suppliers and processes for the production of AC5 Advanced Wound System that is commercially available in the United States. The Company filed documentation with the FDA related to these supply chain changes and announced on March 23, 2020, that the FDA provided the required clearance to market with the supply chain and manufacturing process changes. We cannot yet provide assurance that the changes or resulting product will prove acceptable to us.

The manufacturing, production, and sterilization methods that we intend to be utilized are detailed and complex and are a difficult process to manage.

We intend to utilize third-party manufacturers to manufacture and sterilize our products. We believe that our proposed manufacturing methods make our choice of manufacturer and sterilizer critical, as they must possess sufficient expertise in synthetic organic chemistry and device manufacturing. If such manufacturers are unable to properly manufacture to product specifications or sterilize our products adequately, that could severely limit our ability to market our products.

Compliance with governmental regulations regarding the treatment of animals used in research could increase our operating costs, which would adversely affect the commercialization of our technology.

The Animal Welfare Act ("**AWA**") is the federal law that covers the treatment of certain animals used in research. Currently, the AWA imposes a wide variety of specific regulations that govern the humane handling, care, treatment and transportation of certain animals by producers and users of research animals, most notably relating to personnel, facilities, sanitation, cage size, and feeding, watering and shipping conditions. Third parties with whom we contract are subject to registration, inspections and reporting requirements under the AWA. Furthermore, some states have their own regulations, including general anti-cruelty legislation, which establish certain standards in handling animals. Comparable rules, regulations, and/or obligations exist in many foreign jurisdictions. If our contractors or we fail to comply with regulations concerning the treatment of animals used in research, we may be subject to fines and penalties and adverse publicity, and our operations could be adversely affected.

If the FDA or similar foreign agencies or intermediaries impose requirements more onerous than we anticipate, our business could be adversely affected.

The FDA and other regulatory authorities or related bodies separately determine the classification of our products and product candidates. The development plan for our lead product candidates is based on our anticipation of pursuing the medical device regulatory pathway, and in February 2015 we received confirmation from The British Standards Institution ("**BSI**"), a European notified body (which is a private commercial entity designated by the national government of a European Union ("**EU**") member state as being competent to make independent judgments about whether a medical device complies with applicable regulatory requirements), confirmed that AC5 Topical Hemostat fulfills the definition of a medical device within the EU, and it was classified as such in consideration of the CE mark, receipt of which was announced by the Company on April 13, 2020. The FDA also determined AC5 Topical Gel, which was later renamed AC5 Advanced Wound System, to be a medical device. If the FDA or similar foreign agencies or intermediaries deem our products to be a member of a category other than a medical device, such as a drug or biologic, or impose additional requirements on our pre-clinical and clinical development than we presently anticipate, financing needs would increase, the timeline for product approval would lengthen, the program complexity and resource requirements world increase, and the probability of successfully commercializing a product would decrease. Any or all of those circumstances would materially adversely affect our business.

We are subject to extensive and dynamic medical device regulations outside of the United States, which may impede or hinder the approval, or sale of our products and, in some cases, may ultimately result in an inability to obtain approval of certain products or may result in the recall or seizure of products that were previously approved.

In the European Union, we are required to comply with applicable medical device directives, including the Medical Devices Directive, and obtain CE mark in order to market medical device products. The CE mark is applied following approval from an independent notified body or declaration of conformity. As is the case in the United States, the process of obtaining marketing approval or clearance from comparable agencies in foreign countries for new products, or with respect to enhancements or modifications to existing products, could:

- take a significant period of time;
- require the expenditure of substantial resources;
- involve rigorous pre-clinical and clinical testing;
- require extensive post-marketing surveillance;
- require changes to products; and
- result in limitations on the indicated uses of products.

In addition, exported devices are subject to the regulatory requirements of each country to which the device is exported. Most foreign countries possess medical devices regulations and require that they be applied to medical devices before they can be commercialized.

There can be no assurance that we will receive the required approvals for our products on a timely basis or that any approval will not be subsequently withdrawn or conditioned upon extensive post-market study requirements.

Our global regulatory environment is becoming increasingly stringent and unpredictable, which could increase the time, cost and complexity of obtaining marketing authorization for our products, as well as the clinical and regulatory costs of supporting those approvals. Several countries that did not have regulatory requirements for medical devices have established such requirements in recent years and other countries have expanded existing regulations. Certain regulators are exhibiting less flexibility by requiring, for example, the collection of local preclinical and/or clinical data prior to approval. While harmonization of global regulations has been pursued, requirements continue to differ significantly among countries. We expect the global regulatory environment to continue to evolve, which could impact our ability to obtain future approvals for our products and increase the cost and time to obtain such approvals. By way of example, the European Union regulatory bodies recently implemented a new Medical Device Regulation ("**MDR**"). The MDR changes several aspects of the existing regulatory framework, such as clinical data requirements, and introduces new ones, such as Unique Device Identification ("**UDI**"). We, and the Notified Bodies who will oversee compliance to the new MDR, face uncertainties in the upcoming years as the MDR is rolled out and enforced, creating risks in several areas, including the CE mark process, data transparency and application review timetables.

If we are not able to secure and maintain relationships with third parties that are capable of conducting clinical trials on our product candidates and support our regulatory submissions, our product development efforts, and subsequent marketing authorization could be adversely impacted.

Our management has limited experience in conducting preclinical development activities and clinical trials. As a result, we have relied and will need to continue to rely on third-party research institutions, organizations and clinical investigators to conduct our preclinical and clinical trials and support our regulatory submissions. If we are unable to reach agreement with qualified research institutions, organizations and clinical investigators on acceptable terms, or if any resulting agreement is terminated prior to the completion of our clinical trials, then our product development efforts could be materially delayed or otherwise harmed. Further, our reliance on third parties to conduct our clinical trials and support our regulatory submissions will provide us with less control over the timing and cost of those trials, the ability to recruit suitable subjects to participate in the trials, and the timing, cost, and probability of success for the regulatory submissions. Moreover, the FDA and other regulatory authorities require that we comply with standards, commonly referred to as good clinical practices ("**GCP**"), for conducting, recording and reporting the results of our preclinical development activities and our clinical trials, to assure that data and reported results are credible and accurate and that the rights, safety and confidentiality of trial participants are protected. Additionally, both we and any third-party contractor performing preclinical and clinical studies are subject to regulations governing the treatment of human and animal subjects in performing those studies. Our reliance on third parties that we do not control does not relieve us of those responsibilities and requirements. If those third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical development activities or clinical trials in accordance with regulatory requirements or stated protocols, we may not be able to obtain, or may be delayed in obtaining, marketing authorization for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. Any of those circumstances would materially harm our business and prospects.

Any clinical trials that are planned or are conducted on our flagship product and additional product candidates may not start or may fail.

Clinical trials are lengthy, complex and extremely expensive processes with uncertain expenditures and results and frequent failures. While we have completed our first clinical trial in Western Europe, clinical trials that are planned or which have or shall commence for any of our product candidates could be delayed or fail for a number of reasons, including if:

- FDA or other regulatory authorities, or other relevant decision-making bodies do not grant permission to proceed or place a trial on clinical hold due to safety concerns or other reasons;
- sufficient suitable subjects do not enroll, enroll more slowly than anticipated or remain in our trials;
- we fail to produce necessary amounts of the product or product candidate;
- subjects experience an unacceptable rate of efficacy of the product or product candidate;
- subjects experience an unacceptable rate or severity of adverse side effects, demonstrating a lack of safety of the product or product candidate;
- any portion of the trial or related studies produces negative or inconclusive results or other adverse events;
- reports from preclinical or clinical testing on similar technologies and products raise safety and/or efficacy concerns;
- third-party clinical investigators lose their licenses or permits necessary to perform our clinical trials, do not perform their clinical trials on the anticipated schedule or consistent with the clinical trial protocol, GCP or regulatory requirements, or other third parties do not perform data collection and analysis in a timely or accurate manner;
- inspections of clinical trial sites by the FDA or an institutional review board ("**IRB**") or other applicable regulatory authorities find violations that require us to undertake corrective action, suspend or terminate one or more testing sites, or

- prohibit us from using some or all of the resulting data in support of our marketing applications with the FDA or other applicable agencies;
- manufacturing facilities of our third-party manufacturers are ordered by the FDA or other government or regulatory authorities to temporarily or permanently shut down due to violations of cGMP or other applicable requirements;
- third-party contractors become debarred or suspended or otherwise penalized by the FDA or other government or regulatory authorities for violations of regulatory requirements;
- the FDA or other regulatory authorities impose requirements on the design, structure or other features of the clinical trials for our product candidates that we and/or our third-party contractors are unable to satisfy;
- one or more IRB refuses to approve, suspends or terminates a trial at an investigational site, precludes enrollment of additional subjects, or withdraws its approval of the trial;
- the FDA or other regulatory authorities seek the advice of an advisory committee of physician and patient representatives that may view the risks of our product candidates as outweighing the benefits;
- the FDA or other regulatory authorities require us to expand the size and scope of the clinical trials, which we may not be able to do; or
- the FDA or other regulatory authorities impose prohibitive post-marketing restrictions on any of our product candidates that attain marketing authorization.

Any delay or failure of one or more of our clinical trials may occur at any stage of testing. Any such delay could cause our development costs to materially increase, and any such failure could significantly impair our business plans, which would materially harm our financial condition and operations.

We cannot market and sell any additional product candidate in the U.S. or in any other country or region if we fail to obtain the necessary marketing authorization, clearances or certifications from applicable government agencies.

We cannot sell our additional product candidates in any country until regulatory agencies grant marketing approval, clearance or other required certification(s). The process of obtaining such approval is lengthy, expensive and uncertain. If we are able to obtain such approvals for our lead product candidate or additional product candidates we may pursue, which we may never be able to do, it would likely be a process that takes many years to achieve.

To obtain marketing approvals in the U.S. for our product candidates, we believe that we must, among other requirements, complete carefully controlled and well-designed clinical trials sufficient to demonstrate to the FDA that the product candidate is safe and effective for each indication for which we seek approval. As described above, many factors could cause those trials to be delayed or to fail.

We believe that the pathway to marketing approval in the U.S. for our lead product candidate for internal use will likely be classified as a Class III medical device and require the process of FDA Premarket Approval (“**PMA**”). This approval pathway can be lengthy and expensive and is estimated to take from one to three years or longer from the time the PMA application is submitted to the FDA until approval is obtained, if approval can be obtained at all.

Similarly, to obtain approval to market our product candidates outside of the U.S., we will need to submit clinical data concerning our product candidates to and receive marketing approval or other required certifications from governmental or other agencies in those countries, which in certain countries includes approval of the price we intend to charge for a product. For instance, in order to obtain the certification needed to market our lead product candidate in the EU, we believe that we will need to obtain a CE mark for the product, which entails scrutiny by applicable regulatory agencies and bears some similarity to the PMA process, including completion of one or more successful clinical trials.

We may encounter delays or rejections if changes occur in regulatory agency policies, if difficulties arise within regulatory or related agencies such as, for instance, any delays in their review time, or if reports from preclinical and clinical testing on similar technology or products raise safety and/or efficacy concerns during the period in which we develop a product candidate or during the period required for review of any application for marketing approval or certification.

Any difficulties we encounter during the approval or certification process for any of our product candidates would have a substantial adverse impact on our operations and financial condition and could cause our business to fail.

We cannot guarantee that we will be able to effectively market our product candidates.

A significant part of our success depends on the various marketing strategies we plan to implement. Our business model has historically focused solely on product development, and we have never attempted to market any product. There can be no assurance as to the success of any such marketing strategy that we develop or that we will be able to build a successful sales and marketing organization. If we cannot effectively market those products we seek to market directly, such products' prospects will be harmed.

AC5 Advanced Wound System and any other product for which we obtain required regulatory marketing authorization are subject to post-approval regulation, and we may be subject to penalties if we fail to comply with such post-approval requirements.

AC5 Advanced Wound System and any other product for which we are able to obtain marketing approval or other required certifications, and for which we are able to obtain approval of the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and comparable foreign regulatory authorities, including through periodic inspections. These requirements include, without limitation, submissions of safety and other post-marketing information and reports, registration requirements, cGMP requirements relating to quality control, quality assurance and corresponding maintenance of records and documents. Maintaining compliance with any such regulations that may be applicable to us or our product candidates in the future would require significant time, attention and expense. Even if marketing approval of a product is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or other conditions of approval or may contain requirements for costly and time-consuming post-marketing approval testing and surveillance to monitor the safety or efficacy of the product. Discovery after approval of previously unknown problems with any approved product candidate or related manufacturing processes, or failure to comply with regulatory requirements, may result in consequences to us such as:

- restrictions on the marketing or distribution of a product, including refusals to permit the import or export of the product;
- the requirement to include warning labels on the products;
- withdrawal or recall of the products from the market;
- refusal by the FDA or other regulatory agencies to approve pending applications or supplements to approved applications that we may submit;
- suspension of any ongoing clinical trials;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of marketing approvals or certifications; or
- civil or criminal penalties.

If any of our product candidates achieve required regulatory marketing approvals or certifications in the future, the subsequent occurrence of any such post-approval consequences would materially adversely affect our business and operations.

Current or future legislation may make it more difficult and costly for us to obtain marketing approval or other certifications of our product candidates.

In 2007, the Food and Drug Administration Amendments Act of 2007 ("**FDAAA**") was adopted. This legislation grants significant powers to the FDA, many of which are aimed at assuring the safety of medical products after approval. For example, the FDAAA grants the FDA authority to impose post-approval clinical study requirements, require safety-related changes to product labeling and require the adoption of complex risk management plans. Pursuant to the FDAAA, the FDA may require that a new product be used only by physicians with specialized training, only in specified health care settings, or only in conjunction with special patient testing and monitoring. The legislation also includes requirements for disclosing clinical study results to the public through a clinical study registry, and renewed requirements for conducting clinical studies to generate information on the use of products in pediatric patients. Under the FDAAA, companies that violate these laws are subject to substantial civil monetary penalties. The requirements and changes imposed by the FDAAA, or any other new legislation, regulations or policies that grant the FDA or other regulatory agencies additional authority that further complicates the process for obtaining marketing approval and/or further restricts or regulates post-marketing approval activities, could make it more difficult and more costly for us to obtain and maintain approval of any of our product candidates.

Public perception of ethical and social issues may limit or discourage the type of research we conduct.

Our clinical trials involve human subjects, and third parties with whom we contract also conduct research involving animal subjects. Governmental authorities could, for public health or other purposes, limit the use of human or animal research or prohibit the practice of our technology. Further, ethical and other concerns about our or our third-party contractors' methods, particularly the use of human subjects in clinical trials or the use of animal testing, could delay our research and preclinical and clinical trials, which would adversely affect our business and financial condition.

Use of third parties to manufacture our additional product candidates may increase the risk that preclinical development, clinical development and potential commercialization of our product candidates could be delayed, prevented or impaired.

We have limited personnel with experience in medical device development and manufacturing, do not own or operate manufacturing facilities, and generally lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We currently outsource all or most of the clinical and commercial manufacturing and packaging of our product candidates to third parties. However, we have not established long-term agreements with any third-party manufacturers for the supply of any of our product candidates. There are a limited number of manufacturers that operate under cGMP regulations and that are capable of and willing to manufacture our lead product candidates utilizing the manufacturing methods that are required to produce our product candidates, and our product candidates will compete with other product candidates for access to qualified manufacturing facilities. If we have difficulty locating third-party manufacturers to develop our product candidates for preclinical and clinical work, then our product development programs will experience delays and otherwise suffer. We may also be unable to enter into agreements for the commercial supply of products with third-party manufacturers in the future or may be unable to do so when needed or on acceptable terms. Any such events could materially harm our business.

Reliance on third-party manufacturers entails risks to our business, including without limitation:

- the failure of the third-party to maintain regulatory compliance, quality assurance, and general expertise in advanced manufacturing techniques and processes that may be necessary for the manufacture of our product candidates;
- limitations on supply availability resulting from capacity and scheduling constraints of the third parties;
- failure of the third-party manufacturers to meet the demand for the product candidate, either from future customers or for preclinical or clinical trial needs;
- the possible breach of the manufacturing agreement by the third-party; and
- the possible termination or non-renewal of the agreement by the third-party at a time that is costly or inconvenient for us.

The failure of any of our contract manufacturers to maintain high manufacturing standards could result in harm to clinical trial participants or patients using the products. Such failure could also result in product liability claims, product recalls, product seizures or withdrawals, delays or failures in testing or delivery, cost overruns or other problems that could seriously harm our business or profitability. Further, our contract manufacturers will be required to adhere to FDA and other applicable regulations relating to manufacturing practices. Those regulations cover all aspects of the manufacturing, testing, quality control and recordkeeping relating to our product candidates and any products that we may commercialize in the future. The failure of our third-party manufacturers to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval or other required certifications of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business, financial condition and operations.

Materials necessary to manufacture our product candidates may not be available on time, on commercially reasonable terms, or at all, which may delay or otherwise hinder the development and commercialization of those products and product candidates.

We rely on the manufacturers of our product and product candidates to purchase from third-party suppliers the materials necessary to produce the compounds for preclinical and clinical studies and may continue to rely on those suppliers for commercial distribution if we obtain marketing approval or other required certifications for any of our product candidates. The materials to produce our products may not be available when needed or on commercially reasonable terms, and the prices for such materials may be susceptible to fluctuations. We do not have any control over the process or timing of the acquisition of these materials by our manufacturers. Moreover, we currently do not have any agreements relating to the commercial production of any of these materials. If these materials cannot be obtained for our preclinical and clinical studies, product testing and potential regulatory marketing authorization of our product candidates will be delayed, which would significantly impact our ability to develop our product candidates and materially adversely affect our ability to meet our objectives and obtain operations success.

We may not be successful in maintaining or establishing collaborations, which could adversely affect our ability to develop and, if required regulatory authorizations are obtained, commercialize our product candidates.

If required regulatory authorizations are obtained to market any of our product candidates, then we may consider entering into additional collaboration arrangements with medical technology, pharmaceutical or biotechnology companies and/or seek to establish strategic relationships with marketing partners for the development, sale, marketing and/or distribution of our products within or outside of the U.S. If we elect to expand our current relationships or seek additional collaborators in the future but are unable to reach agreements with such other collaborators, as applicable, then we may fail to meet our business objectives for the affected product or program. Moreover, collaboration arrangements are complex and time consuming to negotiate, document and implement, and we may not be successful in our efforts, if any, to establish and implement additional collaborations or other alternative arrangements. The terms of any collaboration or other arrangements that we establish may not be favorable to us, and the success of any such collaboration will depend heavily on the efforts and activities of our collaborators. Any failure to engage successful collaborators could cause delays in our product development and/or commercialization efforts, which could harm our financial condition and operational results.

We compete with other pharmaceutical and medical device companies, including companies that may develop products that make our product and product candidates less attractive or obsolete.

The medical device, pharmaceutical and biotechnology industries are highly competitive. If our product candidates become available for commercial sale, we will compete in that competitive marketplace. There are several products on the market or in development that could be competitors with our lead product candidates. Further, most of our competitors have greater resources or capabilities and greater experience in the development, approval and commercialization of medical devices or other products than we do. We may not be able to compete successfully against them. We also compete for funding with other companies in our industry that are focused on discovering and developing novel improvements in surgical bleeding prevention.

We anticipate that competition in our industry will increase. In addition, the healthcare industry is characterized by rapid technological change, resulting in new product introductions and other technological advancements. Our competitors may develop and market products that render our lead product candidate or any future product candidate we may seek to develop non-competitive or otherwise obsolete. Any such circumstances could cause our operations to suffer.

If we fail to generate market acceptance of our product and product candidates and establish programs to educate and train surgeons as to the distinctive characteristics of our product and product candidates, we will not be able to generate revenues on our product candidates.

Acceptance in the marketplace of AC5 Advanced Wound System and our lead product candidates depends in part on our and our third-party contractors' ability to establish programs for the training of surgeons in the proper usage of those product candidates, which will require significant expenditure of resources. Convincing surgeons to dedicate the time and energy necessary to properly train to use new products and techniques is challenging, and we may not be successful in those efforts. If surgeons are not properly trained, they may ineffectively use our product candidates. Such misuse could result in unsatisfactory patient outcomes, patient injury, negative publicity or lawsuits against us. Accordingly, even if our product candidates are superior to alternative treatments, our success will depend on our ability to gain and maintain market acceptance for those product candidates among certain select groups of the population and develop programs to effectively train them to use those products. If we fail to do so, we will not be able to generate revenue from product sales and our business, financial condition and results of operations will be adversely affected.

The use of our product and product candidates in human subjects may expose us to product liability claims, and we may not be able to obtain adequate insurance or otherwise defend against any such claims.

We face an inherent risk of product liability claims and currently have product liability and clinical trial liability coverage. If claims against us exceed any applicable insurance coverage we may obtain, then our business could be adversely impacted. Regardless of whether we would be ultimately successful in any product liability litigation, such litigation could consume substantial amounts of our financial and managerial resources, which could significantly harm our business.

Risks Related to our Intellectual Property

If we are unable to obtain and maintain protection for intellectual property rights that we own, seek, or have licensed from other parties, the value of our technology and products will be adversely affected.

Our success will depend in large part on our ability to obtain and maintain protection in the U.S. and other countries for the intellectual property rights covering or incorporated into our technology and products. The ability to obtain patents covering technology in the field of medical devices generally is highly uncertain and involves complex legal, technical, scientific and factual questions. We may not be able to obtain and maintain patent protection relating to our technology or products. Many of our owned or licensed patent applications are pending. Even if issued, patents issued or licensed to us may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, or determined not to cover our product candidates or our competitors' products, which could limit our ability to stop competitors from marketing identical or similar products. Because our patent portfolio includes certain patents and applications that are in-licensed on a non-exclusive basis, other parties may be able to develop, manufacture, market and sell products with similar features covered by the same patent rights and technologies, which in turn could significantly undercut the value of any of our product candidates and adversely affect our business. Our licensed MIT European patent No. 1879606 was opposed; however, this patent was maintained in amended form following an administrative hearing. Both parties appealed this decision. MIT granted European patent EP1879606, to which Arch Therapeutics has an exclusive license, was the subject of a hearing at the European Patent Office Board of Appeal (the "**Board of Appeal**") on November 26, 2021 as a result of an appeal by MIT to obtain broader claim scope than was upheld by the European Patent Opposition Division in 2016 and appeals by opponents for the upheld scope to be denied to MIT. At the oral proceedings, in light of concerns expressed by the Board of Appeal, MIT withdrew its appeal and the affected claims, resulting in a formal revocation of the European patent. There is a pending divisional patent application in which the concerns that the Board of Appeal expressed can be addressed. MIT can file further divisional patent applications to seek additional claim scope. There is no guarantee that any divisional patent application will result in a granted patent or that any granted patent will not be opposed and revoked. The Board of Appeal's decision is in relation to the granted European patent EP1879606 and the various national patents that are derived therefrom, and it has no legal significance outside of Europe except in Hong Kong. Further, we cannot be certain that we were the first to make the inventions claimed in the patents we own or license, or that protection of the inventions set forth in those patents was the first to be filed in the U.S. Third parties that have filed patents or patent applications covering similar technologies or processes may challenge our claim of sole right to use the intellectual property covered by the patents we own or exclusively license. Moreover, changes in applicable intellectual property laws or interpretations thereof in the U.S. and other countries may diminish the value of our intellectual property rights or narrow the scope of our patent protection. Any failure to obtain or maintain adequate protection for our intellectual property would materially harm our business, product development programs and prospects. In addition, our proprietary information, trade secrets and know-how are important components of our intellectual property rights. We seek to protect our proprietary information, trade secrets, know-how and confidential information, in part, with confidentiality agreements with our employees, corporate partners, outside scientific collaborators, sponsored researchers, consultants and other advisors. We also have invention or patent assignment agreements with our employees and certain consultants and advisors. If our employees or consultants breach those agreements, we may not have adequate remedies for any of those breaches. In addition, our proprietary information, trade secrets and know-how may otherwise become known to or be independently developed by others. Enforcing a claim that a party illegally obtained and/or for which a party is using our proprietary information, trade secrets and/or know-how is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. may be less willing to protect trade secrets. Costly and time-consuming litigation could be necessary to seek to defend, enforce and/or determine the scope of our intellectual property rights, and failure to obtain or maintain protection thereof could adversely affect our competitive business position and results of operations.

Many of our owned patent applications are pending, and our patent portfolio includes certain patents and applications that are in-licensed on a non-exclusive basis.

As of October 25, 2023, we either own or license from others a number of U.S. patents, U.S. patent applications, foreign patents and foreign patent applications.

We have also entered into a license agreement with MIT pursuant to which we have been granted exclusive rights under two portfolios of patents and non-exclusive rights under another three portfolios of patents.

The two portfolios exclusively licensed from MIT include approximately 30 patents and pending applications drawn to self-assembling peptides, formulations and methods of use thereof and self-assembling peptidomimetics and methods of use thereof in a total of nine jurisdictions. The portfolios include five issued U.S. patents (US 9,511,113; US 9,084,837; US 10,137,166; US 9,327,010; and US 9,364,513) that expire between 2026 and 2027 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

The portfolios non-exclusively licensed from MIT include a number of US and foreign applications, including three issued U.S. patents (US 7,846,891; US 7,713,923; and US 8,901,084) that expire between 2024 and 2026 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

If we lose certain intellectual property rights owned by third parties and licensed to us, our business could be materially harmed.

We have entered into certain in-license agreements with MIT and with certain other third parties and may seek to enter into additional in-license agreements relating to other intellectual property rights in the future. To the extent we and our product candidates rely heavily on any such in-licensed intellectual property, we are subject to our and the counterparty's compliance with the terms of such agreements in order to maintain those rights. Presently, we, our lead product candidates and our business plans are dependent on the patent and other intellectual property rights that are licensed to us under our license agreement with MIT. Although that agreement has a durational term through the life of the licensed patents, it also imposes or imposed certain diligence, capital raising, and other obligations on us, our breach of which could permit MIT to terminate the agreement. Further, we are responsible for all patent prosecution and maintenance fees under that agreement, and a failure to pay such fees on a timely basis could also entitle MIT to terminate the agreement. Any failure by us to satisfy our obligations under our license agreement with MIT or any other dispute or other issue relating to that agreement could cause us to lose some or all of our rights to use certain intellectual property that is material to our business and our lead product candidates, which would materially harm our product development efforts and could cause our business to fail.

If we infringe or are alleged to infringe the intellectual property rights of third parties, our business and financial condition could suffer.

Our research, development and commercialization activities, as well as any product candidates or products resulting from those activities, may infringe or be accused of infringing a patent or other intellectual property under which we do not hold a license or other rights. Third parties may own or control those patents or other rights in the U.S. or abroad and could bring claims against us that would cause us to incur substantial time, expense, and diversion of management attention. If a patent or other intellectual property infringement suit were brought against us, we could be forced to stop or delay research, development, manufacturing or sales, if any, of the applicable product or product candidate that is the subject of the suit. In order to avoid or settle potential claims with respect to any of the patent or other intellectual property rights of third parties, we may choose or be required to seek a license from a third-party and be required to pay license fees or royalties or both. Any such license may not be available on acceptable terms, or at all. Even if we or our future collaborators were able to obtain a license, the rights granted to us or them could be non-exclusive, which could result in our competitors gaining access to the same intellectual property rights and materially negatively affecting the commercialization potential of our planned products. Ultimately, we could be prevented from commercializing one or more product candidates, or be forced to cease some aspects of our business operations, if, as a result of actual or threatened infringement claims, we are unable to enter into licenses on acceptable terms or at all or otherwise settle such claims. Further, if any such claims were successful against us, we could be forced to pay substantial damages. Any of those results could significantly harm our business, prospects and operations.

Risks Related to Ownership of our Common Stock and Investor Warrants

We have pursued an Uplist Transaction by filing an application to list our Common Stock to trade on the Nasdaq Capital Market. We may not satisfy the listing requirements and thereby consummate an Uplist Transaction, including the requirement to have sufficient capital to satisfy our working capital requirements for at least one year, and the minimum bid price requirement to list on the Nasdaq Capital Market. In the event we fail to consummate an Uplist Transaction and list our Common Stock on the Nasdaq Capital Market, such failure may inhibit or preclude our ability to raise additional financing.

We have committed to pursue an Uplist Transaction. Accordingly, we have filed an application to list our Common Stock on the Nasdaq Capital Market. To successfully list our Common Stock, we are required to satisfy certain Nasdaq listing requirements, including having sufficient capital to satisfy our working capital requirements for at least one year, achieving a minimum bid price for our Common Stock, among other requirements relating to stockholder equity, market value of listed securities and number of market makers and stockholders. If we fail to meet any of those requirements, our application to list our Common Stock on the Nasdaq Capital Market will be denied. No assurances can be given that we will satisfy the listing requirements. If our application is not successful, our Board will weigh the available alternatives to successfully consummate an Uplist Transaction and list our Common Stock on the Nasdaq Capital Market. However, there can be no assurance that we will be able to successfully meet such listing requirements. If, for any reason, our listing application is not approved by Nasdaq and we are unable to otherwise consummate an Uplist Transaction on another national securities exchange or take action to successfully list our Common Stock on the Nasdaq Capital Market, our ability to raise additional capital may be adversely affected.

There is not now, and there may not ever be, an active market for our Common Stock, which trades in the over-the-counter market in low volumes and at volatile prices. Even if the Primary Offering is successful and our application to list our Common Stock on the Nasdaq Capital Market or an Alternate Exchange is approved, no assurance can be given that an active trading market for our Common Stock will develop or be maintained.

There currently is a limited market for our Common Stock. Although our Common Stock is quoted on the OTCQB, an over-the-counter quotation system, trading of our Common Stock is extremely limited and sporadic and generally at very low volumes. Further, the price at which our Common Stock may trade is volatile and we expect that it will continue to fluctuate significantly in response to various factors, many of which are beyond our control. The stock market in general, and securities of small-cap companies driven by novel technologies in particular, has experienced extreme price and volume fluctuations in recent years. Continued market fluctuations could result in further volatility in the price at which our Common Stock may trade, which could cause its value to decline. To the extent we seek to raise capital in the future through the issuance of equity, those efforts could be limited or hindered by low and/or volatile market prices for our Common Stock.

We have applied to list our Common Stock on the Nasdaq Capital Market under the symbol "ARTH." No assurance can be given that our application will be approved or that, if approved, an active trading market for our securities will develop or be maintained. If our Common Stock is not approved for listing on the Nasdaq Capital Market or an Alternate Exchange, we will not complete the Primary Offering. Even if our Common Stock is approved for listing on the Nasdaq Capital Market or an Alternate Exchange, an active trading market for our Common Stock may not develop or be sustained. In the absence of an active trading market for our Common Stock, the ability of our stockholders to sell their securities could be limited. As a result, investors must bear the economic risk of holding their shares of our Common Stock for an indefinite period of time.

Under the 2022 Notes, we are obligated to complete an Uplist Transaction by November 15, 2023 to the Nasdaq Capital Market or an Alternate Exchange. In the event we are unable to uplist our Common Stock, we anticipate that our Common Stock will continue to be quoted on the OTCQB or another over-the-counter quotation system. In those venues, our stockholders may find it difficult to obtain accurate quotations as to the market value of their shares of our Common Stock and may find few buyers to purchase their stock and few market makers to support its price. There is no assurance that our Common Stock will ever be listed on a national securities exchange, that we will be able to comply with or continue to meet such applicable listing standards.

There is not now and may not be an active liquid trading market for our Investor Warrants.

There is no established public trading market for our Investor Warrants. Although we plan to apply to have the Investor Warrants listed on the Nasdaq Capital Market or Alternate Exchange under the symbol "ARTHW," there is no assurance our application will be approved, or even if it is approved, that a public trading market will develop or if one develops that it will be maintained. Without a public market, the liquidity of the Investor Warrants will remain limited.

Even if our planned Reverse Split achieves the requisite increase in the market price of our Common Stock, there can be no assurance that we will be approved for listing on the Nasdaq Capital Market or an Alternate Exchange or be able to comply with other continued listing standards of the Nasdaq Capital Market or an Alternate Exchange.

On August 22, 2023, the stockholders approved a reverse stock split between 1-for-1.5 to 1-for-20, and the Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of the Primary Offering, and without correspondingly decreasing the number of authorized shares of Common Stock. Even if our planned Reverse Split increases the market price of our Common Stock sufficiently so that we comply with the minimum market price requirement, no assurance can be given that we will be able to comply with the other standards that we are required to meet in order to be approved for listing on the Nasdaq Capital Market or an Alternate Exchange or maintain a listing of our Common Stock on such exchange. Our failure to meet these requirements prior to listing will result in the Primary Offering not occurring and our failure to meet these requirements following listing may result in our Common Stock being delisted from the Nasdaq Capital Market or an Alternate Exchange.

The Reverse Split may decrease the liquidity of the shares of our Common Stock.

The liquidity of the shares of our Common Stock may be affected adversely by the Reverse Split given the reduced number of shares that will be outstanding following the Reverse Split. In addition, the Reverse Split may increase the number of stockholders who own odd lots (less than 100 shares) of our Common Stock, creating the potential for such stockholders to experience an increase in the cost of selling their shares and greater difficulty affecting such sales.

We intend to pursue an Uplist Transaction and have submitted an application to list our Common Stock to trade on the Nasdaq Capital Market. We may not satisfy the listing requirements including the requirement to have sufficient capital to satisfy our working capital requirements for at least one year, the market value of listed securities requirement and the minimum bid price requirement to list on the Nasdaq Capital Market and therefore may not consummate an Uplist Transaction. In the event we fail to consummate an Uplist Transaction and list our Common Stock on the Nasdaq Capital Market, such failure may inhibit or preclude our ability to raise additional financing.

We have committed to pursue an Uplist Transaction. Accordingly, we have submitted an application to list our Common Stock on the Nasdaq Capital Markets. To successfully list our Common Stock, we are required to satisfy certain Nasdaq listing requirements, including having sufficient capital to satisfy our working capital requirements for at least one year, achieving a minimum bid price for our Common Stock, among other requirements relating to stockholder equity, market value of listed securities and number of market makers and stockholders. If we fail to meet any of those requirements, our application to list our Common Stock on the Nasdaq Capital Market will be denied. No assurances can be given that we will satisfy the listing requirements. If our application is not successful, our Board of Directors will weigh the available alternatives to successfully consummate an Uplist Transaction and list our Common Stock on the Nasdaq Capital Market. However, there can be no assurance that we will be able to successfully meet such listing requirements. If, for any reason, our listing application is not approved by Nasdaq and we are unable to otherwise consummate an Uplist Transaction on another national securities exchange or take action to successfully list our Common Stock on the Nasdaq Capital Market, our ability to raise additional capital may be adversely affected.

If the Primary Offering is successful, we will be subject to the continued listing requirements of the Nasdaq Capital Market or an Alternate Exchange. If we are unable to comply with such requirements, our Common Stock and Investor Warrants would be delisted from the Nasdaq Capital Market or such Alternate Exchange, which would limit investors' ability to effect transactions in our Common Stock and Investor Warrants and subject us to additional trading restrictions.

Even if the Primary Offering is successful and our application to list our Common Stock and Investor Warrants on the Nasdaq Capital Market or an Alternate Exchange is approved, if we fail to meet the Nasdaq Capital Market or such Alternate Exchange continued listing requirements, including stockholder equity requirements, our Common Stock and Investor Warrants could be subject to delisting by the Nasdaq Capital Market or such Alternate Exchange, which could reduce the liquidity of our Common Stock and Investor Warrants materially and result in a corresponding material reduction in the price of our Common Stock and Investor Warrants. In addition, delisting could harm our ability to raise capital through alternative financing sources on terms acceptable to us, or at all, and may result in the potential loss of confidence by investors, employees and business development opportunities. Such a delisting likely would impair your ability to sell or purchase our Common Stock and Investor Warrants when you wish to do so. Further, if we were to be delisted from the Nasdaq Capital Market or an Alternate Exchange, our Common Stock and Investor Warrants would no longer be recognized as a "covered security" and we would be subject to regulation in each state in which we offer our securities. Thus, delisting from the Nasdaq Capital Market or an Alternate Exchange could adversely affect our ability to raise additional financing through the public or private sale of equity securities, would significantly impact the ability of investors to trade our securities and would negatively impact the value and liquidity of our Common Stock and Investor Warrants.

Our Common Stock may experience extreme stock price volatility unrelated to our actual or expected operating performance, financial condition or prospects, making it difficult for prospective investors to assess the rapidly changing value of our Common Stock.

Recently, there have been instances of extreme stock price run-ups followed by rapid price declines and strong stock price volatility with a number of recent initial public offerings, especially among companies with relatively smaller public floats. As a relatively small-capitalization company with relatively small public float, we may experience greater stock price volatility, extreme price run-ups, lower trading volume and less liquidity than large-capitalization companies. In particular, our Common Stock may be subject to rapid and substantial price volatility, low volumes of trades and large spreads in bid and ask prices. Such volatility, including any stock-run up, may be unrelated to our actual or expected operating performance, financial condition or prospects, making it difficult for prospective investors to assess the rapidly changing value of our Common Stock.

In addition, if the trading volumes of our Common Stock are low, persons buying or selling in relatively small quantities may easily influence prices of our Common Stock. This low volume of trades could also cause the price of our Common Stock to fluctuate greatly, with large percentage changes in price occurring in any trading day session. Holders of our Common Stock may also not be able to readily liquidate their investment or may be forced to sell at depressed prices due to low volume trading. If high spreads between the bid and ask prices of our Common Stock exist at the time of a purchase, the stock would have to appreciate substantially on a relative percentage basis for an investor to recoup their investment. Broad market fluctuations and general economic and political conditions may also adversely affect the market price of our Common Stock.

As a result of this volatility, investors may experience losses on their investment in our Common Stock. A volatile market price of our Common Stock also could adversely affect our ability to issue additional shares of Common Stock or other securities and our ability to obtain additional financing in the future.

Substantial future sales of our shares of Common Stock or rights to purchase shares of our Common Stock, or the perception that such sales could occur, could cause the market price of our Common Stock to decline, even if our business is doing well.

As noted above under the risk factor entitled, "***There is substantial doubt about our ability to continue as a going concern. Even if the Primary Offering is successful, we will need additional funding to continue our operations and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail.***" Sales of substantial amounts of our Common Stock in the public market or the perception that such sales could occur, could adversely affect the trading price of our Common Stock, and may make it more difficult for you to sell your Common Stock at a time and price that you deem appropriate. We are unable to predict the effect that such sales may have on the prevailing price of our Common Stock. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

We, our directors and executive officers have entered into or will enter into lock-up agreements with the underwriter of the Primary Offering pursuant to which they and we have agreed, or will agree, that, subject to certain exceptions, we will not issue or offer, and they will not sell, contract to sell, encumber, grant any option for the sale of, or otherwise dispose of any shares or any securities convertible into or exchangeable for shares of our Common Stock for a period of 6 months after the offering is completed. Sales of a substantial number of such shares upon expiration of, or the perception that such sales may occur, or early release of the securities subject to, the lock-up agreements, could cause our stock price to fall or make it more difficult for you to sell your Common Stock at a time and price that you deem appropriate. A decline in the price of our Common Stock might impede our ability to raise capital through the issuance of additional Common Stock or other equity securities.

In addition, in the future, we may issue additional shares of Common Stock, warrants or other equity or debt securities convertible into Common Stock in one or more transactions, at prices and in a manner we determine from time to time, in connection with a financing, acquisition, litigation settlement, employee arrangements or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause the price of our Common Stock or warrants to decline.

If we issue additional shares in the future, including issuances of shares upon exercise of our outstanding warrants and convertible notes, our existing stockholders will be significantly diluted.

As of September 21, 2023, our articles of incorporation authorize the issuance of up to 350,000,000 shares of Common Stock. The issuance of shares of our Common Stock upon the exercise of our outstanding warrants or conversion of outstanding convertible notes, summarized below, could result in substantial dilution to our stockholders, which may have a negative effect on the price of our Common Stock.

As of October 25, 2023, there were issued and outstanding (or expected to be issued and outstanding, as specified below): (i) options granted to employees, directors and consultants under the 2013 Plan to purchase up to an aggregate of 12,613 shares of Common Stock at exercise prices ranging from $32.00 to $1,040.00 per share and with a weighted average exercise price of $300.43 per share; (ii) 3,285,387 shares of Common Stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of $8.77 per share (which includes 2,349,826 Common Warrants that will automatically be cancelled and exchanged for 7,049,447 Exchange Investor Warrants at the closing of the Primary Offering); (iii) Series 2 Convertible Notes convertible into 6,615 shares of Common Stock at a conversion price of $400.00 per share; (iv) 1,567,127 shares of Common Stock issuable upon conversion of the 2022 Notes at the conversion price of $4.00 per share (taking into account the operation of the Most Favored Nation Provision as a result of the Uplist PIPE); (v) 1,716,780 shares of Common Stock to be issuable upon exercise at $0.001 per share of the PIPE Pre-Funded Warrants expected to be issued immediately prior to the pricing of the Primary Offering; (vi) 1,716,780 shares of Common Stock to be issuable upon exercise at $4.00 per share of the PIPE Investor Warrants expected to be issued immediately prior to the pricing of the Primary Offering; (vii) 85,839 shares of Common Stock to be issuable upon exercise at $5.15625 per share of the PIPE Placement Agent Warrants expected to be issued immediately prior to the pricing of the Primary Offering; (viii) 2,528,812 True-Up Shares expected to be issued at the closing of the Primary Offering; (ix) 5,695,529 shares of Common Stock to be issuable upon exercise at $0.001 of the True-Up Pre-Funded Warrants expected to be issued at the closing of the Primary Offering; (x) 20,000,286 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Uplist Conversion Warrants expected to be issued at the closing of the Primary Offering; (xi) 7,049,447 shares of Common Stock to be issuable upon exercise at $4.00 per share of the Exchange Investor Warrants expected to be issued at the closing of the Primary Offering; (xii) 56,896 shares of Common Stock reserved for future issuance under the 2023 Plan; and (xiii) up to 1,030,303 shares (1,184,848 shares if the underwriters' option to purchase additional Investor Warrants is exercised in full) of Common Stock issuable upon exercise at $4.00 per share of the Investor Warrants to be issued in the Primary Offering.

Additionally, the numbers issuable under the 2023 Plan will increase by specific amounts, as described above under "**Prospectus Summary—Recent Developments—Equity Incentive Plan**." Any future grants of options, warrants or other securities exercisable or convertible into our Common Stock, or the exercise or conversion of such shares, and any sales of such shares in the market, could have an adverse effect on the market price of our Common Stock.

In addition to capital raising activities, other possible business and financial uses for our authorized Common Stock include, without limitation, future stock splits, acquiring other companies, businesses or products in exchange for shares of Common Stock, issuing shares of our Common Stock to partners in connection with strategic alliances, attracting and retaining employees by the issuance of additional securities under our various equity compensation plans, compensating consultants by issuing shares or options to purchase shares of our Common Stock, or other transactions and corporate purposes that our Board deems are in the Company's best interest. Additionally, shares of Common Stock could be used for anti-takeover purposes or to delay or prevent changes in control or management of the Company. We cannot provide assurances that any issuances of Common Stock will be consummated on favorable terms or at all, that they will enhance stockholder value, or that they will not adversely affect our business or the trading price of our Common Stock. The issuance of any such shares will reduce the book value per share and may contribute to a reduction in the market price of the outstanding shares of our Common Stock. If we issue any such additional shares, such issuance will reduce the proportionate ownership and voting power of all current stockholders. Further, such issuance may result in a change of control of our Company.

We are a smaller reporting company, and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our Common Stock less attractive to investors.

We are currently a "smaller reporting company", meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and we either have a public float of less than $250 million as of the last business day of our second fiscal quarter or annual revenues of less than $100 million during our most recently completed fiscal year and a public float of less than $700 million. Smaller reporting companies are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports and in a registration statement under the Exchange Act on Form 10. Decreased disclosures in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.

Financial Industry Regulatory Authority ("FINRA") sales practice requirements may limit a stockholder's ability to buy and sell our stock.

In addition to the "penny stock" rules described above, FINRA has adopted rules that require that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that speculative low-priced securities will not be suitable for at least some customers. These FINRA requirements make it more difficult for broker-dealers to recommend that at least some of their customers buy our Common Stock, which may limit the ability of our stockholders to buy and sell our Common Stock and could have an adverse effect on the market for our shares.

There may be additional risks because we completed a reverse merger transaction in June 2013.

Additional risks may exist because we completed a "reverse merger" transaction in June 2013. Securities analysts of major brokerage firms may not provide coverage of the Company because there may be little incentive to brokerage firms to recommend the purchase of our Common Stock. There may also be increased scrutiny by the SEC and other government agencies and holders of our securities due to the nature of the transaction, as there has been increased focus on transactions such as the Merger in recent years. Further, since the Company existed as a "shell company" under applicable rules of the SEC up until the closing of the Merger on June 26, 2013, there will be certain restrictions and limitations on the Company going forward relating to any potential future issuances of additional securities to raise funding and compliance with applicable SEC rules and regulations.

The elimination of monetary liability against our directors and officers under Nevada law and the existence of indemnification rights held by our directors, officers and employees may result in substantial expenditures by us and may discourage lawsuits against our directors, officers and employees.

Our articles of incorporation eliminate the personal liability of our directors and officers to our Company and our stockholders for damages for breach of fiduciary duty as a director or officer to the extent permissible under Nevada law. Further, our amended and restated bylaws provide that we are obligated to indemnify any of our directors or officers to the fullest extent authorized by Nevada law and, subject to certain conditions, advance the expenses incurred by any director or officer in defending any action, suit or proceeding prior to its final disposition.

Those indemnification obligations could result in our Company incurring substantial expenditures to cover the cost of settlement or damage awards against our directors or officers, which we may be unable to recoup. These provisions and resultant costs may also discourage us from bringing a lawsuit against any of our current or former directors or officers for breaches of their fiduciary duties and may similarly discourage the filing of derivative litigation by our stockholders against our directors and officers even if such actions, if successful, might otherwise benefit us or our stockholders.

We are subject to the reporting requirements of federal securities laws, compliance with which involves significant time, expense and expertise.

We are a public reporting company in the U.S., and, accordingly, are subject to the information and reporting requirements of the Exchange Act and other federal securities laws, including the obligations imposed by the Sarbanes-Oxley Act. The costs associated with preparing and filing annual, quarterly and current reports, proxy statements and other information with the SEC in the ordinary course, as well as preparing and filing audited financial statements, has caused, and could continue to cause, our operational expenses to remain at higher levels or continue to increase.

Shares of our Common Stock that have not been registered under federal securities laws are subject to resale restrictions imposed by Rule 144. In addition, any shares of our Common Stock that are held by affiliates, including any that are registered, will be subject to the resale restrictions of Rule 144.

Rule 144 imposes requirements on us and our stockholders that must be met in order to effect a sale thereunder. As a result, it will be more difficult for us to raise funding to support our operations through the sale of debt or equity securities unless we agree to register such securities under the Securities Act, which could cause us to expend significant additional time and cash resources and which we presently have no intention to pursue. Further, it may be more difficult for us to compensate our employees and consultants with our securities instead of cash. We were a shell company prior to the closing of the Merger, and such status could also limit our use of our securities to pay for any acquisitions we may seek to pursue in the future (although none are currently planned) and could cause the value of our securities to decline. In addition, any shares held by affiliates, including shares received in any registered offering, will be subject to certain additional requirements in order to effect a sale of such shares under Rule 144.

We do not intend to pay cash dividends on our Common Stock in the foreseeable future.

We have never declared or paid any dividends on our shares and do not anticipate paying any such dividends in the foreseeable future. Any future payment of cash dividends would depend on our financial condition, contractual restrictions, solvency tests imposed by applicable corporate laws, results of operations, anticipated cash requirements and other factors and will be at the discretion of our Board.

The market price of our Common Stock may be volatile which could subject us to securities class action litigation.

The market price for our Common Stock has been and may continue to be volatile and subject to wide fluctuations in response to factors including the following:

- sales or potential sales of substantial amounts of our Common Stock;
- delay or failure in initiating or completing preclinical or clinical trials or unsatisfactory results of these trials;
- announcements about us or about our competitors, including clinical trial results, regulatory approvals or new product introductions;
- developments concerning our product manufacturers;
- litigation and other developments relating to our patents or other proprietary rights or those of our competitors;
- conditions in the pharmaceutical or biotechnology industries;
- governmental regulation and legislation;
- variations in our anticipated or actual operating results;
- change in securities analysts' estimates of our performance, or our failure to meet analysts' expectations; foreign currency values and fluctuations; and
- overall economic conditions.

In the past, securities class action litigation has been brought against companies following periods of volatility of its securities in the marketplace. The stock markets in general, and the market for pharmaceutical and biotechnology companies in particular, have historically experienced extreme price and volume fluctuations. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors could reduce the market price of our Common Stock, regardless of our actual operating performance. Due to the volatility of our stock price, we could be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources.

SELLING STOCKHOLDERS

The Common Stock being offered by the selling stockholders are the 2022 Inducement Shares, Bridge Shares, True-Up Shares and those issuable to the selling stockholders, upon conversion of the 2022 Notes and exercise of the 2022 Warrants (issued in the second and third closing of our 2022 Private Placement Financing), 2022 Note Conversion Pre-Funded Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants. For additional information regarding the issuances of such securities, see "**The Transactions**" above. We are registering the shares of Common Stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for Terrence Norchi, our Chief Executive Officer; Michael Abrams, our Chief Financial Officer; Laurence Hicks, a member of our Board and holder of an ownership interest in Drake Partners LLC and Maxim Group LLC, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of Common Stock by each of the selling stockholders. The second column lists the number of shares of Common Stock beneficially owned by each selling stockholder, based on its ownership of the shares of Common Stock and warrants, as of October 25, 2023, assuming exercise of the warrants and conversion of convertible notes held by the selling stockholders on that date, without regard to any limitations on exercises. The third column lists the shares of Common Stock being offered by this prospectus by the selling stockholders. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

In accordance with the terms of (i) Second Amended and Restated Registration Rights Agreement with certain of the selling stockholders or (ii) the terms of the 2022 Notes, 2022 Warrants and 2022 Placement Agent Warrants held by certain of the selling stockholders, this prospectus generally covers the resale of the sum of (A) the maximum number of shares of Common Stock issuable upon conversion of the 2022 Notes issued to the selling stockholders in the 2022 Private Placement Financing; and (B) the maximum number of shares of Common Stock issuable upon exercise of the 2022 Warrants and 2022 Placement Agent Warrant, determined as if the outstanding 2022 Notes were converted and the 2022 Warrants and 2022 Placement Agent Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Second Amended and Restated Registration Rights Agreement, 2022 Note, 2022 Warrant or 2022 Placement Agent Warrant, as applicable, without regard to any limitations on the conversion of the 2022 Notes or the exercise of the 2022 Warrants and 2022 Placement Agent Warrants.

This prospectus also covers the maximum number of shares of Common Stock issuable upon exercise of the maximum number of 2022 Note Conversion Pre-Funded Warrants that may be issuable under the 2022 Notes at the closing of the Primary Offering in lieu of Automatic Conversion Shares otherwise issuable, as if such maximum amount of 2022 Note Conversion Pre-Funded Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the 2022 Note Conversion Pre-Funded Warrants, without regard to any limitations on the exercise of 2022 Note Conversion Pre-Funded Warrants.

Additionally, this prospectus covers the maximum number of shares of Common Stock issuable upon exercise of the Uplist Conversion Warrants that are expected to be issued under the 2022 Notes at the closing of the Primary Offering, as if such Uplist Conversion Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Uplist Conversion Warrants, without regard to any limitations on the exercise of Uplist Conversion Warrants.

In accordance with the terms of (i) Bridge Registration Rights Agreement with certain of the selling stockholders or (ii) the terms of the Bridge Warrants held by certain of the selling stockholders, this prospectus generally covers the resale of the sum of the maximum number of shares of Common Stock issuable upon exercise of the Bridge Warrants determined as if the outstanding Bridge Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Bridge Registration Rights Agreement and Bridge Warrants, as applicable, without regard to any limitations on the exercise of the Bridge Warrants.

In accordance with the terms of (i) the PIPE Registration Rights Agreement with certain of the selling stockholders or (ii) the PIPE Warrants held by certain of the selling stockholders, this prospectus generally covers the resale of the sum of the maximum number of shares of Common Stock issuable upon exercise of the PIPE Warrants determined as if the outstanding PIPE Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the PIPE Registration Rights Agreement and PIPE Warrants, as applicable, without regard to any limitations on the exercise of the PIPE Warrants.

This prospectus covers the resale of the maximum number of True-Up Shares that may be issuable under the Bridge SPA at the closing of the Primary Offering, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance. This prospectus also covers the maximum number of shares of Common Stock issuable upon exercise of the maximum number of True-Up Pre-Funded Warrants that may be issuable under the Bridge SPA at the closing of the Primary Offering in lieu of True-Up Shares otherwise issuable, as if such maximum amount of True-Up Pre-Funded Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the True-Up Pre-Funded Warrants, without regard to any limitations on the exercise of True-Up Pre-Funded Warrants.

Under the terms of the 2022 Notes, 2022 Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants, Uplist Conversion Warrants and 2022 Note Conversion Pre-Funded Warrants a selling stockholder may not convert the notes or exercise the warrants to the extent such exercise would cause such selling stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock which would exceed 4.99% (or 9.99% if elected and as applicable) of our then outstanding Common Stock following such exercise, excluding for purposes of such determination shares of Common Stock issuable upon conversion of the 2022 Notes and exercise of the 2022 Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants, Uplist Conversion Warrants and 2022 Note Conversion Pre-Funded Warrants which have not been exercised. The number of shares in the second column does not reflect this limitation. The selling stockholders may sell all, some or none of their shares in this offering. See "**Plan of Distribution** " on page 46.

Name of Selling Stockholder	Number of shares of Common Stock Owned Prior to Offering	Maximum Number of shares of Common Stock to be Sold Pursuant to this Prospectus	Number of shares of Common Stock Owned After Offering
Oasis Capital, LLC (1)	614,733	11,255,160	974,189
District 2 Capital Fund LP (2)	210,625	4,321,292	486,721
Bigger Capital Fund, LP (3)	210,754	4,321,287	486,784
Cavalry Fund I LP (4)	191,052	5,427,670	964,175
Sanibel Island Associates LLC (Anestis) (5)	21,766	309,792	16,171
Michael & Ana Parker (6)	280,168	4,077,059	225,560
ProActive Capital Partners, L.P. (7)	69,470	1,019,106	52,967
Michael Abrams (8)	11,407	154,732	8,172
Jason Adelman (9)	21,614	309,465	16,344
Centurion Therapeutics, Inc. (10)	23,802	332,154	1,132
Drake Partners LLC (11)	11,245	154,732	8,189
Terrence Norchi (12)	19,821	103,156	13,923
Michael Tuttle (13)	31,736	442,872	1,509
Trina Whitridge GST Trust (14)	76,977	1,122,911	58,069
Mark Woolfson (15)	27,018	386,826	20,429
Steve Woolfson (16)	30,620	438,407	23,153
Walleye Opportunities Master Fund Ltd (17)	37,500	3,284,350	957,209
Sixth Borough Capital Fund, LP (18)	37,500	773,221	272,902
Brandt Wilson and Mona Wilson (19)	37,500	3,284,350	957,209
Andrew Stahl (20)	37,500	3,284,350	957,209
John Robert Baleno (21)	9,091	154,545	54,545
Roxanne Rosetto (22)	4,546	77,273	27,273
Robert Forster (23)	22,727	386,362	136,364
Thomas Pilgrim (24)	9,091	154,545	54,545
Rajiv P Dewan (25)	5,000	85,000	30,000
David L McClain (26)	2,500	42,500	15,000
Norman McClain (27)	5,000	85,000	30,000
Ronald Nash (28)	4,546	77,273	27,273
Richard Molinsky (29)	6,818	115,906	40,909
George Benashivili (30)	1,288	21,887	7,725
Dan Armstrong (31)	9,091	154,545	54,545
CNP Consulting (32)	1,750	29,750	10,500
Ivan Chi Vei Tong (33)	2,500	42,500	15,000
Genmark Holdings (34)	9,091	154,545	54,545
Stephen Ross (35)	2,273	38,636	13,637
Efrat Investments (36)	4,546	77,273	27,273
Daniel Shalhoub (37)	2,273	38,636	13,637
Jeffrey and Shiela Negus (38)	2,273	38,636	13,637
Maxim Group LLC (39)	4,759	821	3,939
Total	2,111,968	46,578,524	7,132,359

1. Assuming exercise or conversion of the warrants or convertible notes held by Oasis Capital, LLC ("**Oasis**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Oasis may be deemed to have beneficial ownership of 12,367,462 shares of Common Stock, which consists of the following: (i) 1,798 2022 Inducement Shares; (ii) 33,892 Bridge Shares; (iii) 1,116,834 True-Up Shares; (v) 538,180 Conversion Shares; (vi) 269,090 Automatic Conversion Shares; (vii) 23,962 2022 Warrant Shares; (viii) 269,090 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 319,096 Common Warrant Shares; (x) 125,656 Bridge Pre-Funded Warrant Shares; (xi) 6,868,469 Uplist Conversion Warrant Shares; (xii) 1,116,834 True-Up Pre-Funded Warrant Shares; (xiii) 286,130 PIPE Investor Warrant Shares; and (xiv) 286,130 PIPE Pre-Funded Warrant Shares.

2. Assuming exercise or conversion of the warrants or convertible notes held by District 2 Capital Fund LP ("**District 2**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, District 2 may be deemed to have beneficial ownership of 4,877,423 shares of Common Stock, which consists of the following: (i) 236 2022 Inducement Shares; (ii) 17,897 Bridge Shares; (iii) 558,393 True-Up Shares; (v) 181,250 Conversion Shares; (vi) 90,625 Automatic Conversion Shares; (vii) 3,144 2022 Warrant Shares; (viii) 90,625 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 159,541 Common Warrant Shares; (x) 61,874 Bridge Pre-Funded Warrant Shares; (xi) 2,313,185 Uplist Conversion Warrant Shares; (xii) 558,393 True-Up Pre-Funded Warrant Shares; (xiii) 143,065 PIPE Investor Warrant Shares; and (xiv) 143,065 PIPE Pre-Funded Warrant Shares.

3. Assuming exercise or conversion of the warrants or convertible notes held by Bigger Capital Fund, LP ("**Bigger Capital**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Bigger Capital may be deemed to have beneficial ownership of 4,877,417 shares of Common Stock, which consists of the following: (i) 236 2022 Inducement Shares; (ii) 17,961 Bridge Shares; (iii) 558,391 True-Up Shares; (v) 181,250 Conversion Shares; (vi) 90,625 Automatic Conversion Shares; (vii) 3,144 2022 Warrant Shares; (viii) 90,625 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 159,541 Common Warrant Shares; (x) 61,809 Bridge Pre-Funded Warrant Shares; (xi) 2,313,185 Uplist Conversion Warrant Shares; (xii) 558,391 True-Up Pre-Funded Warrant Shares; (xiii) 143,065 PIPE Investor Warrant Shares; and (xiv) 143,065 PIPE Pre-Funded Warrant Shares.

4. Assuming exercise or conversion of the warrants or convertible notes held by Cavalry Fund I, LP ("**Cavalry**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Cavalry may be deemed to have beneficial ownership of 6,539,917 shares of Common Stock, which consists of the following: (i) 189 2022 Inducement Shares; (ii) 36,406 Bridge Shares; (iii) 1,116,771 True-Up Shares; (v) 145,000 Conversion Shares; (vi) 72,500 Automatic Conversion Shares; (vii) 2,515 2022 Warrant Shares; (viii) 72,500 2022 Note Conversion Pre-Funded Warrant Shares; (ix) 319,078 Common Warrant Shares; (x) 123,133 Bridge Pre-Funded Warrant Shares; (xi) 1,850,548 Uplist Conversion Warrant Shares; (xii) 1,116,771 True-Up Pre-Funded Warrant Shares; (xiii) 286,130 PIPE Investor Warrant Shares; and (xiv) 286,130 PIPE Pre-Funded Warrant Shares.

5. Assuming exercise or conversion of the warrants or convertible notes held by Sanibel Island Associates LLC (Anestis) ("**Sanibel**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Sanibel may be deemed to have beneficial ownership of 325,232 shares of Common Stock, which consists of the following: (i) 23 2022 Inducement Shares; (ii) 2,573 Bridge Shares; (iii) 18,012 True-Up Shares; (iv) 18,000 Conversion Shares; (v) 9,000 Automatic Conversion Shares; (vi) 302 2022 Warrant Shares; (vii) 9,000 2022 Note Conversion Pre-Funded Warrant Shares; (viii) 5,147 Common Warrant Shares; (ix) 229,724 Uplist Conversion Warrant Shares; and (x) 18,012 True-Up Pre-Funded Warrant Shares.

6. Assuming or conversion of the warrants or convertible notes held by Ana Parker or her affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Ms. Parker may be deemed to have beneficial ownership of 4,283,116 shares of Common Stock, which consists of the following: (i) 24,035 Bridge Shares; (ii) 240,399 True-Up Shares; (iii) 236,631 Conversion Shares; (iv) 118,316 Automatic Conversion Shares; (v) 118,316 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 68,686 Common Warrant Shares; (vii) 10,308 Bridge Pre-Funded Warrant Shares; (viii) 3,019,969 Uplist Conversion Warrant Shares; and (ix) 240,399 True-Up Pre-Funded Warrant Shares.

7. Assuming exercise of the warrants held by ProActive Capital Partners, L.P. ("**ProActive**") as of October 25, 2023 and disregarding any limitations on exercise applicable to such warrants, ProActive may be deemed to have beneficial ownership of 1,070,564 shares of Common Stock, which consists of the following: (i) 8,576 Bridge Shares; (ii) 60,034 True-Up Shares; (iii) 59,158 Conversion Shares; (iv) 29,579 Automatic Conversion Shares; (v) 29,579 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 17,153 Common Warrant Shares; (vii) 754,993 Uplist Conversion Warrant Shares; and (viii) 60,034 True-Up Pre-Funded Warrant Shares.

8. Assuming exercise or conversion of the warrants or convertible notes held by Michael Abrams or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Abrams may be deemed to have beneficial ownership of 162,451 shares of Common Stock, which consists of the following: (i) 1,287 Bridge Shares; (ii) 9,005 True-Up Shares; (iii) 9,000 Conversion Shares; (iv) 4,500 Automatic Conversion Shares; (v) 4,500 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 2,573 Common Warrant Shares; (vii) 114,862 Uplist Conversion Warrant Shares; and (viii) 9,005 True-Up Pre-Funded Warrant Shares.

9. Assuming exercise or conversion of the warrants or convertible notes held by Jason Adelman or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Adelman may be deemed to have beneficial ownership of 324,903 shares of Common Stock, which consists of the following: (i) 2,573 Bridge Shares; (ii) 18,011 True-Up Shares; (iii) 18,000 Conversion Shares; (iv) 9,000 Automatic Conversion Shares; (v) 9,000 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 5,146 Common Warrant Shares; (vii) 229,724 Uplist Conversion Warrant Shares; and (viii) 18,011 True-Up Pre-Funded Warrant Shares.

10. Assuming exercise or conversion of the warrants or convertible notes held by Centurion Therapeutics, Inc. ("Centurion") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Centurion may be deemed to have beneficial ownership of 332,154 shares of Common Stock, which consists of the following: (i) 22,500 Conversion Shares; (ii) 11,250 Automatic Conversion Shares; (iii) 11,250 2022 Note Conversion Pre-Funded Warrant Shares; and (iv) 287,154 Uplist Conversion Warrant Shares.

11. Assuming exercise or conversion of the warrants or convertible notes held by Drake Partners LLC ("**Drake Partners**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Drake Partners may be deemed to have beneficial ownership of 162,451 shares of Common Stock, which consists of the following: (i) 1,287 Bridge Shares; (ii) 9,005 True-Up Shares; (iii) 9,000 Conversion Shares; (iv) 4,500 Automatic Conversion Shares; (v) 4,500 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 2,573 Common Warrant Shares; (vii) 114,862 Uplist Conversion Warrant Shares; and (viii) 9,005 True-Up Pre-Funded Warrant Shares.

12. Assuming exercise or conversion of the warrants or convertible notes held by Terrence Norchi or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Norchi may be deemed to have beneficial ownership of 108,303 shares of Common Stock, which consists of the following: (i) 858 Bridge Shares; (ii) 6,004 True-Up Shares; (iii) 6,000 Conversion Shares; (iv) 3,000 Automatic Conversion Shares; (v) 3,000 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 1,716 Common Warrant Shares; (vii) 76,575 Uplist Conversion Warrant Shares; and (viii) 6,004 True-Up Pre-Funded Warrant Shares.

13. Assuming exercise or conversion of the warrants or convertible notes held by Michael Tuttle or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Tuttle Norchi may be deemed to have beneficial ownership of 442,872 shares of Common Stock, which consists of the following: (i) 30,000 Conversion Shares; (ii) 15,000 Automatic Conversion Shares; (iii) 15,000 11,250 2022 Note Conversion Pre-Funded Warrant Shares; and (iv) 382,872 Uplist Conversion Warrant Shares.

14. Assuming exercise or conversion of the warrants or convertible notes held by Trina Whitridge GST Trust ("**Whitridge**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Whitridge may be deemed to have beneficial ownership of 1,179,516 shares of Common Stock, which consists of the following: (i) 45 2022 Inducement Shares; (ii) 9,434 Bridge Shares; (iii) 66,038 True-Up Shares (iv) 65,158 Conversion Shares; (v) 32,579 Automatic Conversion Shares; (vi) 604 2022 Warrant Shares; (vii) 32,579 2022 Note Conversion Pre-Funded Warrant Shares; (viii) 18,868 Common Warrant Shares; (ix) 831,568 Uplist Conversion Warrant Shares; and (x) 66,038 True-Up Pre-Funded Warrant Shares.

15. Assuming exercise or conversion of the warrants or convertible notes held by Mark Woolfson or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Woolfson may be deemed to have beneficial ownership of 406,123 shares of Common Stock, which consists of the following: (i) 3,216 Bridge Shares; (ii) 22,512 True-Up Shares; (iii) 22,500 Conversion Shares; (iv) 11,250 Automatic Conversion Shares; (v) 11,250 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 6,432 Common Warrant Shares; (vii) 287,154 Uplist Conversion Warrant Shares; and (viii) 22,512 True-Up Pre-Funded Warrant Shares.

16. Assuming exercise or conversion of the warrants or convertible notes held by Steve Woolfson or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Woolfson be deemed to have beneficial ownership of 460,277 shares of Common Stock, which consists of the following: (i) 3,645 Bridge Shares; (ii) 25,515 True-Up Shares; (iii) 25,500 Conversion Shares; (iv) 12,750 Automatic Conversion Shares; (v) 12,750 2022 Note Conversion Pre-Funded Warrant Shares; (vi) 7,290 Common Warrant Shares; (vii) 325,442 Uplist Conversion Warrant Shares; and (viii) 25,515 True-Up Pre-Funded Warrant Shares.

17. Assuming exercise or conversion of the warrants held by Walleye Opportunities Master Fund Ltd ("**Walleye**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Walleye may be deemed to have beneficial ownership of 4,396,573 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 1,116,743 True-Up Shares; (iv) 319,070 Common Warrant Shares; (v) 122,035 Bridge Pre-Funded Warrant Shares; (vi) 1,116,743 True-Up Pre-Funded Warrant Shares; (vii) 286,130 PIPE Investor Warrant Shares; and (viii) 286,130 PIPE Pre-Funded Warrant Shares.

18. Assuming exercise or conversion of the warrants held by Sixth Borough Capital Fund, LP ("**Sixth Borough**") or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Sixth Borough may be deemed to have beneficial ownership of 1,046,123 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 318,385 True-Up Shares; (iii) 90,967 Common Warrant Shares; (iv) 7,984 Bridge Pre-Funded Warrant Shares; and (v) 318,385 True-Up Pre-Funded Warrant Shares.

19. Assuming exercise or conversion of the warrants held by Brandt Wilson and Mona Wilson or their affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Wilson and Mrs. Wilson may be deemed to have beneficial ownership of 4,396,573 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 1,116,743 True-Up Shares; (iv) 319,070 Common Warrant Shares; (v) 122,035 Bridge Pre-Funded Warrant Shares; (vi) 1,116,743 True-Up Pre-Funded Warrant Shares; (vii) 286,130 PIPE Investor Warrant Shares; and (viii) 286,130 PIPE Pre-Funded Warrant Shares.

20. Assuming exercise or conversion of the warrants held by Andrew Stahl or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Stahl may be deemed to have beneficial ownership of 4,396,573 shares of Common Stock, which consists of the following: (i) 37,500 Bridge Shares; (ii) 1,116,743 True-Up Shares; (iv) 319,070 Common Warrant Shares; (v) 122,035 Bridge Pre-Funded Warrant Shares; (vi) 1,116,743 True-Up Pre-Funded Warrant Shares; (vii) 286,130 PIPE Investor Warrant Shares; and (viii) 286,130 PIPE Pre-Funded Warrant Shares.

21. Assuming exercise or conversion of the warrants held by John Robert Baleno or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Baleno may be deemed to have beneficial ownership of 209,090 shares of Common Stock, which consists of the following: (i) 9,091 Bridge Shares; (ii) 63,636 True-Up Shares; (iii) 18,182 Common Warrant Shares; and (iv) 63,636 True-Up Pre-Funded Warrant Shares.

22. Assuming exercise or conversion of the warrants held by Roxanne Rosetto or her affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Ms. Rosetto may be deemed to have beneficial ownership of 104,546 shares of Common Stock, which consists of the following: (i) 4,546 Bridge Shares; (ii) 31,818 True-Up Shares; (iii) 9,091 Common Warrant Shares; and (iv) 31,818 True-Up Pre-Funded Warrant Shares.

23. Assuming exercise or conversion of the warrants held by Robert Forster or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Forster may be deemed to have beneficial ownership of 522,725 shares of Common Stock, which consists of the following: (i) 22,727 Bridge Shares; (ii) 159,090 True-Up Shares; (iii) 45,455 Common Warrant Shares; and (iv) 159,090 True-Up Pre-Funded Warrant Shares.

24. Assuming exercise or conversion of the warrants held by Thomas Pilgrim or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Pilgrim may be deemed to have beneficial ownership of 209,090 shares of Common Stock, which consists of the following: (i) 9,091 Bridge Shares; (ii) 63,636 True-Up Shares; (iii) 18,182 Common Warrant Shares; and (iv) 63,636 True-Up Pre-Funded Warrant Shares.

25. Assuming exercise or conversion of the warrants held by Rajiv P. Dewan or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Dewan may be deemed to have beneficial ownership of 115,000 shares of Common Stock, which consists of the following: (i) 5,000 Bridge Shares; (ii) 35,000 True-Up Shares; (iii) 10,000 Common Warrant Shares; and (iv) 35,000 True-Up Pre-Funded Warrant Shares.

26. Assuming exercise or conversion of the warrants held by David L. McClain or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. McClain may be deemed to have beneficial ownership of 57,500 shares of Common Stock, which consists of the following: (i) 2,500 Bridge Shares; (ii) 17,500 True-Up Shares; (iii) 5,000 Common Warrant Shares; and (iv) 17,500 True-Up Pre-Funded Warrant Shares.

27. Assuming exercise or conversion of the warrants held by Norman McClain or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. McClain may be deemed to have beneficial ownership of 115,000 shares of Common Stock, which consists of the following: (i) 5,000 Bridge Shares; (ii) 35,000 True-Up Shares; (iii) 10,000 Common Warrant Shares; and (iv) 35,000 True-Up Pre-Funded Warrant Shares.

28. Assuming exercise or conversion of the warrants held by Ronald Nash or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Nash may be deemed to have beneficial ownership of 104,546 shares of Common Stock, which consists of the following: (i) 4,546 Bridge Shares; (ii) 31,818 True-Up Shares; (iii) 9,091 Common Warrant Shares; and (iv) 31,818 True-Up Pre-Funded Warrant Shares.

29. Assuming exercise or conversion of the warrants held by Richard Molinsky or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Molinsky may be deemed to have beneficial ownership of 156,815 shares of Common Stock, which consists of the following: (i) 6,818 Bridge Shares; (ii) 47,726 True-Up Shares; (iii) 13,636 Common Warrant Shares; and (iv) 47,726 True-Up Pre-Funded Warrant Shares.

30. Assuming exercise or conversion of the warrants held by George Benashivili or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Benashivili may be deemed to have beneficial ownership of 29,612 shares of Common Stock, which consists of the following: (i) 1,288 Bridge Shares; (ii) 9,012 True-Up Shares; (iii) 2,575 Common Warrant Shares; and (iv) 9,012 True-Up Pre-Funded Warrant Shares.

31. Assuming exercise or conversion of the warrants held by Dan Armstrong or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Armstrong may be deemed to have beneficial ownership of 209,090 shares of Common Stock, which consists of the following: (i) 9,091 Bridge Shares; (ii) 63,636 True-Up Shares; (iii) 18,182 Common Warrant Shares; and (iv) 63,636 True-Up Pre-Funded Warrant Shares.

32. Assuming exercise or conversion of the warrants held by CNP Consulting or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, CNP Consulting may be deemed to have beneficial ownership of 40,250 shares of Common Stock, which consists of the following: (i) 1,750 Bridge Shares; (ii) 12,250 True-Up Shares; (iii) 3,500 Common Warrant Shares; and (iv) 12,250 True-Up Pre-Funded Warrant Shares.

33. Assuming exercise or conversion of the warrants held by Ivan Chi Vei Tong or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Tong may be deemed to have beneficial ownership of 57,500 shares of Common Stock, which consists of the following: (i) 2,500 Bridge Shares; (ii) 17,500 True-Up Shares; (iii) 5,000 Common Warrant Shares; and (iv) 17,500 True-Up Pre-Funded Warrant Shares.

34. Assuming exercise or conversion of the warrants held by Genmark Holdings or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Genmark Holdings may be deemed to have beneficial ownership of 209,090 shares of Common Stock, which consists of the following: (i) 9,091 Bridge Shares; (ii) 63,636 True-Up Shares; (iii) 18,182 Common Warrant Shares; and (iv) 63,636 True-Up Pre-Funded Warrant Shares.

35. Assuming exercise or conversion of the warrants held by Stephen Ross or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Ross may be deemed to have beneficial ownership of 52,273 shares of Common Stock, which consists of the following: (i) 2,273 Bridge Shares; (ii) 15,909 True-Up Shares; (iii) 4,546 Common Warrant Shares; and (iv) 15,909 True-Up Pre-Funded Warrant Shares.

36. Assuming exercise or conversion of the warrants held by Efrat Investments or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Efrat Investments may be deemed to have beneficial ownership of 104,546 shares of Common Stock, which consists of the following: (i) 4,546 Bridge Shares; (ii) 31,818 True-Up Shares; (iii) 9,091 Common Warrant Shares; and (iv) 31,818 True-Up Pre-Funded Warrant Shares.

37. Assuming exercise or conversion of the warrants held by Daniel Shalhoub or his affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Shalhoub may be deemed to have beneficial ownership of 52,273 shares of Common Stock, which consists of the following: (i) 2,273 Bridge Shares; (ii) 15,909 True-Up Shares; (iii) 4,546 Common Warrant Shares; and (iv) 15,909 True-Up Pre-Funded Warrant Shares.

38. Assuming exercise or conversion of the warrants held by Jeffrey and Shiela Negus or their affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Mr. Negus and Mrs. Negus may be deemed to have beneficial ownership of 52,273 shares of Common Stock, which consists of the following: (i) 2,273 Bridge Shares; (ii) 15,909 True-Up Shares; (iii) 4,546 Common Warrant Shares; and (iv) 15,909 True-Up Pre-Funded Warrant Shares.

39. Assuming exercise or conversion of the warrants held by Maxim or its affiliates as of October 25, 2023 and disregarding any limitations on exercise or conversion applicable to such warrants or convertible notes, Maxim may be deemed to have beneficial ownership of 821 shares of Common Stock, which consists of the following: (i) 821 2022 Placement Agent Warrant Shares.

PLAN OF DISTRIBUTION

Each selling stockholder of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal Trading Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker dealer solicits purchasers;
- block trades in which the broker dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker dealer as principal and resale by the broker dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker dealers that agree with the selling stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker dealers engaged by the selling stockholders may arrange for other brokers dealers to participate in sales. Broker dealers may receive commissions or discounts from the selling stockholders (or, if any broker dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

USE OF PROCEEDS

We will not receive proceeds from the sale of Common Stock under this prospectus. We may, however, receive proceeds upon exercise for cash of the 2022 Warrants, 2022 Note Conversion Pre-Funded Warrants, 2022 Placement Agent Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants in which case such proceeds will be used for general working capital purposes. However, each of the aforementioned warrants contains a cashless exercise provision.

The selling stockholders may (i) convert their 2022 Notes at any time at their own discretion, if at all, subject to conversion, prepayment, and acceleration under the terms of the 2022 Notes, (ii) exercise their 2022 Warrants, 2022 Note Conversion Pre-Funded Warrants, Bridge Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants at any time at their own discretion, if at all, and (iii) exercise their 2022 Placement Agent Warrants 6 months from the date of issuance, if at all; in each instance in accordance with the terms thereof until their expiration.

For further information, see the descriptions under "**Prospectus Summary**-**The Transactions**" beginning at page 6 of this prospectus and "**Description of Securities**" beginning at page 46 of this prospectus. Additionally, if there is no effective registration statement registering the resale of the shares of Common Stock underlying the 2022 Warrants, 2022 Note Conversion Pre-Funded Warrants, Bridge Warrants, 2022 Placement Agent Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants as of certain time periods, then the selling stockholders may choose to exercise the 2022 Warrants, 2022 Note Conversion Pre-Funded Warrants, Bridge Warrants, 2022 Placement Agent Warrants, True-Up Pre-Funded Warrants, PIPE Warrants and Uplist Conversion Warrants on a "cashless exercise" or "net exercise" basis. If they do so, we will not receive any proceeds from the exercise of such warrants. As a result, we cannot plan on receiving any proceeds from the exercise of any of such warrants, nor can we plan on any specific uses of any proceeds we may receive beyond the purposes described herein. We have agreed to bear the expenses (other than any underwriting discounts or commissions or agent's commissions) in connection with the registration of the Common Stock being offered hereby by the selling stockholders.

DESCRIPTION OF SECURITIES

Authorized Capital Stock

Pursuant to our amended and restated articles of incorporation, as amended, as of September 21, 2023, our authorized capital stock consists of 350,000,000 shares of Common Stock. The following description summarizes the material terms of our capital stock. Because it is only a summary, it may not contain all the information that is important to you. In connection with the Primary Offering, we intend to effect a reverse stock split of our Common Stock at a ratio of 1-for-8 prior to the pricing of the Primary Offering.

Preferred Stock

We are authorized to issue up to 5,000,000 shares of preferred stock, par value $0.001 per share, from time to time in one or more series. As of the date of this prospectus, there are no shares of our preferred stock outstanding.

The shares of preferred stock may be issued in series, and each such series shall have such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights, and qualifications, limitations or restrictions thereof, as shall be stated and expressed in the certificate of designation relating to such series, as approved by the board of directors and filed with the Nevada Secretary of State. Pursuant to our articles of incorporation, our Board of Directors is expressly vested with the authority, without further action by the stockholders, to determine and fix in the resolution or resolutions providing for the issuances of preferred stock the voting powers, designations, preferences and rights, and the qualifications, limitations or restrictions thereof, of each such series to the full extent now or hereafter permitted by the laws of the State of Nevada.

Prior to the issuance of any series of preferred stock, we will further amend our articles of incorporation, as amended, by way of a certificate of designation designating such series and its terms. We will file a copy of the certificate of designation that contains the terms of each such series of preferred stock with the Nevada Secretary of State and the SEC each time we issue a new series of preferred stock. Each certificate of designation will establish the number of shares included in a designated series and fix the designation, powers, privileges, preferences and rights of the shares of each series as well as any applicable qualifications, limitations or restrictions, including, as applicable:

- the designation, stated value and liquidation preference of the series;
- the number of shares authorized within the series;
- the offering price;
- the dividend rate or rates (or method of calculation), the date or dates from which dividends shall accrue, and whether such dividends shall be cumulative or noncumulative and, if cumulative, the dates from which dividends shall commence to cumulate;
- any redemption or sinking fund provisions;
- the amount that shares of the series shall be entitled to receive in the event of our liquidation, dissolution or winding-up;
- the terms and conditions, if any, on which shares of the series shall be convertible or exchangeable for shares of our stock of any other class or classes, or other series of the same class;
- the voting rights, if any, of shares of the series; the status as to reissuance or sale of shares of the series redeemed, purchased or otherwise reacquired, or surrendered to us on conversion or exchange;
- the conditions and restrictions, if any, on the payment of dividends or on the making of other distributions on, or the purchase, redemption or other acquisition by us or any subsidiary, of the common stock or of any other class of our shares ranking junior to the shares of the series as to dividends or upon liquidation;
- the conditions and restrictions, if any, on the creation of indebtedness by us or by any subsidiary, or on the issuance of any additional stock ranking on a parity with or prior to the shares of the series as to dividends or upon liquidation; and
- any additional dividend, liquidation, redemption, sinking or retirement fund and other rights, preferences, privileges, limitations and restrictions of the series.

The issuance of any preferred stock could adversely affect the rights of the holders of common stock and, therefore, reduce the value of the common stock. The ability of our Board of Directors to issue preferred stock could discourage, delay or prevent a takeover or other corporate action.

Common Stock Issued and Outstanding; Common Stock Registered Hereby

As of October 25, 2023, there were issued and outstanding 586,195 shares of Common Stock.

Transfer Agent

The transfer agent for our Common Stock is Empire Stock Transfer. Our transfer agent's address is 1859 Whitney Mesa Drive, Henderson, Nevada 89014.

Anti-Takeover Provisions of Nevada State Law

Some features of the Nevada Revised Statutes ("**NRS**"), which are further described below, may have the effect of deterring third parties from making takeover bids for control of us or may be used to hinder or delay a takeover bid. This would decrease the chance that our stockholders would realize a premium over market price for their shares of Common Stock as a result of a takeover bid.

Acquisition of Controlling Interest

The NRS contain provisions governing acquisition of a controlling interest of a Nevada corporation. These provisions provide generally that any person or entity that acquires a certain percentage of the outstanding voting shares of a Nevada corporation may be denied voting rights with respect to the acquired shares, unless certain criteria are satisfied. Our amended and restated bylaws provide that these provisions will not apply to us or to any existing or future stockholder or stockholders.

Combination with Interested Stockholder

The NRS contain provisions governing combinations of a Nevada corporation that has 200 or more stockholders of record with an "interested stockholder." These provisions only apply to a Nevada corporation that, at the time the potential acquirer became an interested stockholder, has a class or series of voting shares listed on a national securities exchange, or has a class or series of voting shares traded in an "organized market" and satisfies certain specified public float and stockholder levels. As we do not now meet those requirements, we do not believe that these provisions are currently applicable to us. However, to the extent they become applicable to us in the future, they may have the effect of delaying or making it more difficult to affect a change in control of the Company in the future.

A corporation affected by these provisions may not engage in a combination within two years after the interested stockholder acquires his, her or its shares unless the combination or purchase is approved by the board of directors before the interested stockholder acquired such shares. Generally, if approval is not obtained, then after the expiration of the two-year period, the business combination may be consummated with the approval of the board of directors before the person became an interested stockholder or a majority of the voting power held by disinterested stockholders, or if the consideration to be received per share by disinterested stockholders is at least equal to the highest of:

- the highest price per share paid by the interested stockholder within the three years immediately preceding the date of the announcement of the combination or within three years immediately before, or in, the transaction in which he, she or it became an interested stockholder, whichever is higher;
- the market value per share on the date of announcement of the combination or the date the person became an interested stockholder, whichever is higher; or
- if higher for the holders of preferred stock, the highest liquidation value of the preferred stock, if any.

Generally, these provisions define an interested stockholder as a person who is the beneficial owner, directly or indirectly of 10% or more of the voting power of the outstanding voting shares of a corporation, and define combination to include any merger or consolidation with an interested stockholder, or any sale, lease, exchange, mortgage, pledge, transfer or other disposition, in one transaction or a series of transactions with an interested stockholder of assets of the corporation:

- having an aggregate market value equal to 5% or more of the aggregate market value of the assets of the corporation;
- having an aggregate market value equal to 5% or more of the aggregate market value of all outstanding shares of the corporation; or
- representing 10% or more of the earning power or net income of the corporation.

MARKET PRICE OF AND DIVIDENDS ON COMMON STOCK AND RELATED MATTERS

Market Information

Our Common Stock is currently quoted on the OTCQB over-the-counter quotation system under the stock symbol "ARTH". Our Common Stock began quotation on the OTCBB and the OTCQB on June 27, 2013 and since that date has been primarily traded on the OTCQB. There was no trading of our Common Stock on the OTCBB, OTCQB or any other over-the-counter market prior to January 2, 2013. Although our Common Stock is currently quoted on the OTCQB, there is a limited trading market for our Common Stock and there have been few trades in our Common Stock to date. Because our Common Stock is thinly traded on the OTCQB, (i) any reported sale prices may not be a true market-based valuation of our Common Stock; and (ii) such over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

Dividends

We have never declared or paid any cash dividends or distributions on our capital stock. We currently intend to retain our future earnings, if any, to support operations and to finance expansion and therefore we do not anticipate paying any cash dividends on our Common Stock in the foreseeable future.

Holders

As of October 25, 2023, there were approximately 131 holders of record of our Common Stock.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the other sections of this prospectus, including our audited annual consolidated financial statements and related notes beginning on page F-1 of this prospectus. This discussion and analysis contains forward-looking statements, including information about possible or assumed results of our financial condition, operations, plans, objectives and performance that involve risks, uncertainties and assumptions. See "**Cautionary Note Regarding Forward-Looking Statements**" beginning on page 2 of this prospectus. Our actual results may differ materially from those anticipated or suggested in any forward-looking statements.*

Corporate Overview

Arch Therapeutics, Inc. (together with its subsidiary, the "**Company**" or "**Arch**") arose from the June 26, 2013 merger (the "**Merger**") of three entities previously known as Arch Biosurgery, Inc., Almah, Inc., and Arch Acquisition Corporation, respectively.

Arch Biosurgery, Inc. ("**ABS**") is a biotechnology company that was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc., changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. on April 7, 2008, and, as part of the Merger transaction, changed its name from Arch Therapeutics, Inc. to Arch Biosurgery.

Almah, Inc., was incorporated under the laws of the State of Nevada on September 16, 2009 and, as part of the Merger transaction, changed its name to Arch Therapeutics, Inc. and abandoned both its prior business plan and operations in order to adopt those of ABS.

Arch Acquisition Corporation, or Merger Sub, was a wholly owned subsidiary of Almah, Inc., formed for the purpose of the Merger transaction, pursuant to which Merger Sub merged with and into ABS, and ABS thereafter became the wholly owned subsidiary of the Company.

The Company's principal offices are located in Framingham, Massachusetts.

The Company has recently devoted substantially all of its operational effort to the market adoption and commercial sales of AC5® Advanced Wound System, its first product. To date, the Company has principally raised capital through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of shares of the Company's common stock, $0.001 par value per share ("**Common Stock**"), and warrants.

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of current and potential products. However, there can be no assurance that the Company will be successful in securing additional capital when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern for one year past the issuance of the financial statements. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Liquidity

We devote a significant amount of our efforts on fundraising, planning and conducting clinical trials, activities in connection with obtaining regulatory approval, and product research. We have principally raised capital through borrowings, the issuance of convertible debt, and units consisting of Common Stock and warrants to fund our operations. For the year ended September 30, 2022, we had a net loss of $5,275,854 versus a net loss of $6,240,482 in the prior year. The losses for each of the years ended September 30, 2022 and 2021 can be attributable to research and development expense, including regulatory approval and product research, and general and administrative costs, primarily relating to legal costs associated with intellectual property and patent application, general corporate legal expense all of which were partially offset by adjustments to the derivative liabilities and, for the fiscal year ended September 30, 2021, a gain on the forgiveness of the loan issued by First Republic Bank under the Paycheck Protection Program, established under the Coronavirus Aid, Relief, and Economic Security Act. For the nine months ended June 30, 2023, we had a net loss of $4,525,640 versus a net loss of $3,387,295 in the same period in fiscal year 2022. Cash used in operating activities decreased $1,502,553 during the year ended September 30, 2022 to $4,456,075, compared to $5,958,628 for the year ended September 30, 2021. Cash used in operating activities during the nine months ended June 30, 2023 was $2,147,480, compared to $2,786,642 for the same period in fiscal year 2022.

Business Overview

We are a biotechnology company marketing and developing a number of products based on our innovative AC5® self-assembling technology platform. We believe these products can be important advances in the field of stasis and barrier applications, which includes managing wounds created during surgery, trauma, interventional care or disease; stopping bleeding (hemostasis); and controlling leaking (sealant). We have recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5 Advanced Wound System, our first product. Our goal is to make care faster and safer for patients with products for use on external wounds, which we refer to as Dermal Sciences applications, and products for use inside the body, which we refer to as BioSurgery applications.

Commercial Update

During its fourth fiscal quarter ended September 30, 2023, the Company experienced a significant increase in AC5 orders, posting record monthly order volumes during both August and September. Taken together, orders from August and September represented more than half of total fiscal year volume, and September orders more than doubled August orders. The Company also observed favorable coverage and reimbursement decisions from multiple payors in different regions of the country with a commensurate increase in paid claims. Early in the fourth fiscal quarter, the Company received its first payment from a provider as a result of a paid claim for reimbursement of AC5 using A2020, and the number of paid claims across different payor networks increased throughout the quarter. The trend has continued into November 2023.

Core Technology

Our flagship products and product candidates are derived from our AC5® self-assembling peptide (SAP) technology platform and are sometimes referred to as AC5 or the "AC5 Devices." These include AC5 Advanced Wound System and AC5® Topical Hemostat, which have received marketing authorization as medical devices in the United States and Europe, respectively, and which are intended for skin applications, such as the management of complicated chronic wounds and acute surgical wounds. Marketing for AC5 Topical Hemostat in Europe has not initiated. Other products are in development for use in minimally invasive or open surgical procedures and include, for example, AC5-G™ for gastrointestinal endoscopic procedures and AC5-V® and AC5® Surgical Hemostat for hemostasis inside the body, all of which are currently investigational devices limited by law to investigational use.

Products based on the AC5 platform contain a proprietary biocompatible peptide that is synthesized from proteogenic, naturally occurring L-amino acids. Unlike products that contain traditional peptide sequences, when applied to a wound, AC5-based products intercalate into the interstices of the tissue and self-assemble (i.e., self-build) into a protective physical-mechanical nanoscale structure that can provide a barrier to leaking substances, such as blood, while also acting as a biodegradable scaffold that enables healing. Self-assembly is a central component of the mechanism of action of our technology. Individual AC5 peptide units readily build themselves, or self-assemble, into an ordered network of nanofibrils when in aqueous solution by the following process:

- Peptide strands line up with neighboring peptide strands, interacting via hydrogen bonds (non-covalent bonds) to form a ribbon-like structure called a beta sheet.
- This process continues such that hundreds of strands organize with charged and polar side chains oriented on one face and non-polar side chains oriented on the opposite face of the beta sheets.
- Interactions of the resulting structure with water molecules and ions results in formation nanofibrils, which extend in length and can join together to form larger nanofibers.
- This network of AC5 peptide nanofibers forms the semi-solid physical-mechanical barrier that interacts with the extracellular matrix, is responsible for sealant, hemostatic and/or other properties that may be observed even in the presence of antithrombotic agents (i.e., blood thinners), and which subsequently becomes the scaffold that supports the repair and regeneration of damaged tissue.

Based on the intended application, we believe that the underlying AC5 SAP technology can impart important features and benefits to our products that may include, for instance, stopping bleeding (hemostasis), mitigating contamination, modulating inflammation, donating moisture, and enabling an appropriate wound microenvironment conducive to healing. Furthermore, we believe that AC5 SAP technology permits cell and tissue growth and is self-healing, in that it can dynamically self-repair around migrating cells. For instance, AC5 Advanced Wound System, which is indicated for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds, is shipped and stored at room temperature, is applied directly as a liquid, can conform to irregular wound geometry, self-assembles into a wound care matrix that can provide clinicians with multi-modal support, and does not possess sticky or glue-like handling characteristics. We believe these properties enhance its utility in several settings and contribute to its user-friendly profile.

We believe that our technology lends itself to a range of potential applications for wounds inside or on the body, including those for which a hemostatic agent or sealant is needed. For instance, the results of certain preclinical and clinical investigations that either we have conducted, or others have conducted on our behalf, have shown quick and effective hemostasis with the use of AC5 SAP technology, and that time to hemostasis ("**TTH**") is comparable among test subjects regardless of whether such test subject had or had not been treated with therapeutic doses of anticoagulant or antiplatelet medications, commonly called "blood thinners." Furthermore, the transparency and physical properties of certain AC5 Devices may enable a surgeon to operate through it in order to maintain a clearer field of vision and prophylactically stop or lessen bleeding as surgery starts, a concept that we call Crystal Clear Surgery™. An example of a product that contains related features and benefits is AC5 Topical Hemostat, which is indicated for use as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound. AC5 Topical Hemostat has not yet been marketed in Europe but has received marketing authorization.

Marketing

Sales and marketing efforts for our AC5 Advanced Wound System, which has received 510(k) marketing clearance from the FDA, address the demand for improved solutions to treat challenging chronic and acute surgical wounds, with a particular early focus on diabetic foot ulcers, venous leg ulcers and pressure ulcers. Chronic wounds are typically defined as wounds that have not healed after four weeks of standard care. Approximately 4 million to 6.5 million new onset chronic wounds are estimated to occur in the U.S. annually, including approximately 700,000 to 2 million diabetic foot ulcers, 2.5 million pressure ulcers, and 1.2 million venous leg ulcers. If untreated, improperly treated or unresponsive to treatment, these wounds can ultimately lead to amputation. The 5-year mortality rate among patients with chronic wounds, especially after an amputation, is significant.

Published data on AC5 Advanced Wound System shows encouraging outcomes, including limb salvage (avoided limb loss), among patients with multiple co-morbidities and challenging chronic wounds that failed to heal despite treatment with either traditional or other advanced wound care modalities over prolonged periods of time.

We currently maintain an internal commercial team focused on driving awareness and adoption of AC5 Advanced Wound System in several targeted channels with a particular focus on physician offices and government channels, such as Veterans Health Administration hospitals ("**VA Hospitals**") and military treatment facilities ("**MTFs**"). We anticipate that material growth in the physician office setting will require product reimbursement. To that end, we submitted an application to the Centers for Medicare and Medicaid Services ("**CMS**") in July 2022 for a unique product reimbursement code. Our application was subsequently approved with a go-live date of April 1, 2023. We have launched a temporary reimbursement support program in line with CMS guidance to support commercial use and adoption of AC5 Advanced Wound System both before and after the go-live date of our unique product code (A2020). In support of the VA and MTF market, we partnered with Lovell Government Services ("**LGS**"), a Service-Disabled Veteran-Owned Small Business, as its distributor in the government channel. As a direct result of its relationship with LGS, AC5 Advanced Wound System is listed on the four major government supply schedules (ECAT, DAPA, FSS and GSA) in order to allow doctors in any VA or MTF to order AC5 Advanced Wound System. We have also established and will continue to seek partnerships with reputable, value-added independent sales distributors on a case-by-case basis to expand the overall reach and footprint of its total sales organization. Presently, our commercialization efforts and resources remain dedicated to the U.S. market for advanced wound care.

Operations

Much of our operational efforts to date, which we often perform in collaboration with partners, have included selecting compositions and formulations for our initial products; conducting preclinical studies, including safety and other tests; conducting a human trial for safety and performance of AC5; developing and conducting a human safety study to assess for irritation and sensitization potential; securing marketing authorization for our first product in the United States and in Europe; supporting surgeons performing clinical case studies; obtaining post-marketing clinical data; developing, optimizing, and validating manufacturing methods and formulations, which are particularly important components of self-assembling peptide development; developing methods for manufacturing scale-up, reproducibility, and validation; engaging with regulatory authorities to seek early regulatory guidance as well as marketing authorization for our products; sourcing and evaluating commercial partnering opportunities in the United States and abroad; and developing and protecting the intellectual property rights underlying our technology platform.

Our long-term business plan includes the following goals:

- Continue to build recent commercial momentum and grow revenues by driving awareness, adoption and payment policies for AC5 Advanced Wound System with the now-effective CMS Level II Healthcare Common Procedure Coding System ("**HCPCS**") code dedicated to the "AC5";
- conducting biocompatibility, pre-clinical, and clinical studies on our products and product candidates;
- obtaining additional marketing authorization for products in the United States, Europe, and other jurisdictions as we may determine;
- continuing to develop third party relationships to manufacture, distribute, market and otherwise commercialize our products;
- continuing to develop academic, scientific and institutional relationships to collaborate on product research and development;
- expanding and maintaining protection of our intellectual property portfolio; and
- developing additional product candidates in Dermal Sciences, BioSurgery, and other areas.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding as required to support the previously described milestones necessary to support our operations;

- work with our manufacturing partners to scale up production of product compliant with cGMP, which activities will be ongoing and tied to our development and commercialization needs;
- further clinical development of our product platform;
- assess our technology platform in order to identify and select product candidates for potential advancement into development;
- seek regulatory input to guide activities related to expanded and new product marketing authorizations;
- continue to expand and enhance our financial and operational reporting and controls;
- pursue commercial partnerships; and
- expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and/or adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio.

In addition to capital required for operating expenses, depending upon input from regulatory authorities, authorized representatives, patent and trademark offices, or other agencies in the US, EU or elsewhere, as well as for potential additional regulatory filings and approvals during the approximately next two years, additional capital will be required.

We have no commitments for any future capital. We will require significant additional financing to fund our planned operations, including further research and development relating to AC5, seeking regulatory approval of any product we may choose to develop, commercializing any product for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or business, and maintaining our intellectual property rights, pursuing new technologies and for financing the investor relations and incremental administrative costs associated with being a public corporation. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA (as defined below), PIPE SPA, as defined below and securities purchase agreement dated July 6, 2022, as amended (the "**2022 Notes SPA**"), associated with the sale of the 2022 Notes (the "**2022 Notes Financing**"), in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "Risk Factors" in this prospectus.

The estimated capital requirements potentially could increase significantly if a number of risks relating to conducting these activities were to occur, including without limitation those set forth under the heading "**Risk Factors**" in this prospectus. We anticipate that our operating and other expenses will continue to increase as we continue to implement our business plan and pursue and achieve these goals. After giving effect to the funds received in past equity and debt financings and assuming our use of that funding at the rate we presently anticipate, as of October 25, 2023, we do not believe that our current cash on hand is sufficient to meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. Even if the Primary Offering is successful, we could spend our financial resources much faster than we expect, in which case we would need to raise additional capital as our current funds may not be sufficient to operate our business for the entire duration of that period.

Preclinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain preclinical bench-top and animal research and development studies, typically with assistance from our team. These third parties can include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and/or other collaborators.

We completed the biocompatibility studies required to receive marketing authorizations for AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and such test results support that the products are biocompatible. We will perform further biocompatibility testing that we deem necessary for additional indications, classifications, jurisdictions, and/or as required by regulatory authorities.

Acute and survival animal studies assessing the safety and performance of our technology have also demonstrated favorable outcomes in Dermal Sciences and BioSurgical applications.

Clinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain clinical studies and related activities, typically with assistance from our team. These third parties can include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and/or other collaborators.

We completed two clinical studies. The first study, which met its primary and secondary endpoints, assessed the safety and performance of our product candidate in 46 patients with bleeding skin wounds that resulted from excision of skin lesions and followed for 30 days. The second study assessed our product candidate on skin, determining that it was neither an irritant nor a sensitizer, and no immunogenic response or serious or other adverse events attributable to our product were reported in any of the approximately 50 enrolled volunteers. The product candidate in these studies subsequently received marketing authorization and is presently known as AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe.

Post marketing clinical case reports have been published demonstrating both efficacy and safety in a range of challenging acute surgical or chronic wounds on patients.

Commercialization

Our commercialization efforts are currently focused on Dermal Sciences. Our BioSurgery products for internal use will require additional preclinical and clinical testing before we seek marketing authorization to commercialize them.

Our Dermal Sciences products are AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and the indication for use, or purpose, for each product follows, respectively:

- Under the supervision of a health care professional, AC5 Advanced Wound System is a topical dressing used for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds.

- AC5 Topical Hemostat is intended for use locally as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound.

In practice, we envision that both products will be used in comparable wounds, including, in particular, acute or chronic wounds that require surgical intervention. Examples include, surgical excision of dead, contaminated, or damaged tissue, otherwise known as debridement, in chronic wounds; complicated wounds created during an acute surgical procedure; failed acute surgical wounds; wounds requiring wound bed preparation in advance of other procedures; wounds in need of an advanced dressing that incorporates an initial protective barrier function followed by a scaffolding or lattice function that enables healing.

We announced receipt of 510(k) premarket notification clearances for AC5 Advanced Wound System on December 17, 2018, providing marketing authorization, and on March 23, 2020, clearing use of an additional supplier and additional manufacturing processes. We announced receipt of the CE mark for AC5 Topical Hemostat on April 13, 2020.

The COVID-19 pandemic environment introduced new challenges related to product launch, marketing and sales, as clinicians and facilities are increasingly focused on managing resources, the disease, or its potential spread. We believe that these challenges have also highlighted some potential opportunities for our new technology to address certain poorly met needs. For instance, wound interventions are too often considered to be elective procedures instead of being treated essentially or emergently as National Pressure Ulcer Advisory Panel guidelines and others recommend, resulting in a projected increased risk to limb and life while elective procedures are delayed and not prioritized. Furthermore, the implications of these delays are a growing backlog of chronic wounds awaiting care and a worsening of such wounds, leading to greater morbidity, such as infection, necrosis, and amputation, and potentially mortality.

We expect our Dermal Sciences product commercialization to be gradual, initially, and moderately accelerate into new market channels. In addition to identifying and encouraging product use by key opinion leaders and early adopters, we will prioritize our focus on private and government facilities. VA Hospitals, for example, tend to have many patients whose needs we believe we can help address. We prioritized the launch of AC5 Advanced Wound System in the United States over that of AC5 Topical Hemostat in Europe to maximize operational efficiencies in light of the COVID-19 pandemic and have not yet determined when we will launch the product in Europe.

On December 13, 2021, we announced that in partnership with Lovell Government Services, our AC5 Advanced Wound System has been added to the Federal Supply Schedule and General Services Administration contracts and is approved for purchase by all federal government agencies, including the Department of VA, Indian Health Services, and Department of Defense Medical Treatment Facilities effective December 15, 2021.

On March 14, 2022, we announced the Company had entered into a distribution agreement with Centurion Therapeutics Inc. ("**Centurion**"), an exclusive strategic partner to the world's largest tissue bank, to expand sales opportunities for AC5 Advanced Wound System. Centurion distributes a comprehensive portfolio of aseptically processed human tissues to support surgeons in a broad array of specialties through over a hundred contracted wound care distributors nationwide. AC5 Advanced Wound System will be added to their advanced wound care product line as part of this distribution agreement.

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain sales and marketing activities, typically with assistance from our team. These third parties can include contract organizations, consultants, advisors, scientists, clinicians, and/or other collaborators.

The COVID-19 Pandemic Impact on Commercialization

The COVID-19 pandemic environment introduced significant challenges related to product launch, marketing and sales, as clinicians and facilities became overburdened and increasingly focused on managing resources, the disease, and the virus spread. While the overall environment has improved, many negative effects linger. We have observed the following effects at different times, and anticipate that they will variously wax and wane over time:

- the volume of elective surgical procedures has been constrained periodically, with many institutions indefinitely suspending or eliminating such procedures at times;
- healthcare facilities often have been required to ration staff and resources, including ventilators, personal protective equipment ("**PPE**"), and operating rooms, thereby negatively impacting the focus on wound care;
- clinicians often have been required to divert their time and resources to urgent COVID-19 needs;
- clinicians often have been required to quarantine due to exposure to a COVID-19 positive individual or isolate because of contracting symptomatic or asymptomatic COVID-19 disease;
- some institutions have been periodically designated "COVID Hospitals";
- access to surgeons, potential strategic partners, and facilities outside of the United States has become curtailed;
- administrators who may be required to facilitate or approve new product intake are constrained by new and other pressing priorities; and
- both clinicians and patients often try to minimize possible COVID-19 exposure, resulting in reduced access to healthcare system and essential care treatments and services.

We believe that these challenges have also highlighted some potential opportunities for our new technology to address certain poorly met needs. For instance, wound interventions are too often considered to be elective procedures instead of being treated essentially or emergently as National Pressure Ulcer Advisory Panel guidelines and others recommend, resulting in a projected increased risk to limb and life while elective procedures are delayed and not prioritized. Furthermore, the implications of these delays are a growing backlog of chronic wounds awaiting care and a worsening of such wounds, leading to greater morbidity, such as infection, necrosis, and amputation, and potentially mortality.

While highlighted by the COVID-19 pandemic, we also believe that these challenges reveal an underlying problem in the healthcare system-clinicians and other providers are being asked to accomplish more in less time with fewer resources. These resources may include higher acuity settings, such as operating rooms; expensive wound care products that may not work as well as desired; nursing time to change wound dressings; and surgeon time for managing wounds during debridement; repeat patient visits over months and often years, and others. Our COVID-19 related discussions with surgeons, economic stakeholders and other decision-making personnel often include whether AC5 Advanced Wound System may enable them to accomplish more for their patients while deploying overall fewer resources and achieving desired outcomes.

Manufacturing

We work with contract manufacturing and related organizations, including those operating under cGMP, as is required by applicable regulatory agencies for production of product that can be used for preclinical and human testing as well as for commercial use. We also have engaged and continue to engage other third parties in the United States and abroad to advise on and perform certain manufacturing and related activities, typically with assistance from our team. These third parties include academic institutions, consultants, advisors, scientists, and/or other collaborators. The activities include development of our primary product candidates, as well as generation of appropriate analytical methods, scale-up, and other procedures for use by manufacturers and/or other members of our supply chain to produce or process our products at current and/or larger scale quantities for preclinical and clinical testing and ultimately, as required marketing authorizations are obtained, commercialization.

Our products are regulated as medical devices, and as such, many of our activities have focused on optimizing traditional parameters to target specifications, biocompatibility, physical appearance, stability, and handling characteristics, among other metrics, in order to achieve the desired product. We and our partners intend to continue to monitor manufacturing processes and formulation methods closely, as success or failure in establishing and maintaining appropriate specifications may directly impact our ability to conduct additional preclinical and clinical trials and/or deliver commercial product.

Merger with ABS and Related Activities

On June 26, 2013, the Company completed the Merger with ABS, pursuant to which ABS became a wholly owned subsidiary of the Company. In contemplation of the Merger, effective June 5, 2013, the Company changed its name from Almah, Inc. to Arch Therapeutics, Inc. and changed the ticker symbol under which our Common Stock trades on the OTC Bulletin Board from "AACH" to "ARTH".

Recent Events

On July 18, 2023, the board of directors of the Company (the "**Board**") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "**Amendment**") to (i) increase the total number of authorized shares of Common Stock from 12,000,000 to 350,000,000 (the "**Authorized Share Increase**"), (ii) authorize 5,000,000 shares of "blank check" preferred stock of the Company, thereby giving the Board the authority to designate from time to time one or more series of preferred stock (the "**Blank Check Preferred**"), and (iii) provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**" and, together with the Authorized Share Increase and the Blank Check Preferred, the "**Charter Amendments**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company (the "**Majority Stockholders**") executed a written consent approving the Charter Amendments and the Company filed a preliminary Information Statement with the SEC with respect to the transactions contemplated hereby. The Company filed a definitive Information Statement with the SEC and mailed the definitive Information Statement to the Company's stockholders notifying them of the action taken by written consent on September 1, 2023. Accordingly, the Company filed the Amendment with respect to the Authorized Share Increase and the Blank Check Preferred with the Secretary of State of Nevada on September 21, 2023. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of the Primary Offering. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

Reverse Stock Split

On January 17, 2023, the Company effected a prior reserve stock split (the "**Prior Reverse Stock Split**") of the Common Stock at a ratio of 1-for-200. As a result of the Prior Reverse Stock Split, every two hundred (200) shares of Common Stock issued and outstanding were combined into one (1) share of Common Stock, with a proportionate 1:200 reduction in the Company's authorized Common Stock. The Prior Reverse Stock Split affected all stockholders uniformly and did not alter any stockholder's percentage interest in the Company's equity, except to the extent that the Prior Reverse Stock Split would have resulted in some stockholders owning a fractional share. No fractional shares were issued in connection with the Prior Reverse Stock Split. Any fractional shares of Common Stock resulting from the Prior Reverse Stock Split were rounded up to the nearest whole post-Prior Reverse Stock Split share and no stockholders received cash in lieu of fractional shares. The Prior Reverse Stock Split did not change the par value of the Common Stock. All outstanding securities entitling their holders to purchase shares of Common Stock or acquire shares of Common Stock, including stock options, restricted stock units, and warrants, were adjusted as a result of the Prior Reverse Stock Split, as required by the terms of those securities. The Prior Reserve Stock Split was approved by the Company's stockholders on September 29, 2022.

On January 13, 2023, the Company filed a Certificate of Amendment (the "**Certificate of Amendment**") to the Company's Amended and Restated Articles of Incorporation with the Secretary of State of the State of Nevada to increase the number of authorized shares of Common stock from 4,000,000 shares to 12,000,000 shares. The increase in the number of authorized shares was approved by the Company's stockholders on September 29, 2022.

Uplist PIPE

On November 8, 2023, the Company and certain institutional and accredited individual investors (collectively, the "**PIPE Investors**") entered into a Securities Purchase Agreement (the "**PIPE SPA**"), pursuant to which the Company has agreed to issue and sell to the PIPE Investors, and the PIPE Investors have agreed to purchase from the Company, an aggregate of (i) warrants (the "**PIPE Pre-Funded Warrants**") to purchase an aggregate of 1,716,780 shares of Common Stock (the "**PIPE Pre-Funded Warrant Shares**") and (ii) warrants (the "**PIPE Investor Warrants**" and together with the PIPE Pre-Funded Warrants, the "**PIPE Warrants**") to purchase an aggregate 1,716,780 shares of Common Stock (the "**PIPE Investor Warrant Shares**" and together with the PIPE Pre-Funded Warrant Share, the "**PIPE Warrant Shares**"), at a purchase price of $4.124 per PIPE Pre-Funded Warrant to purchase one share of Common Stock and accompanying PIPE Investor Warrant to purchase one share of Common Stock, for aggregate gross proceeds of $7.1 million, before deducting the placement agent's fees and estimated offering expenses, and expected net proceeds of $6.4 million after deducting the placement agent's fees and estimated offering expenses payable by the Company. The PIPE Pre-Funded Warrants, and PIPE Investor Warrants will be issued as part of a private placement offering authorized by the Company's board of directors (the "**Uplist PIPE**"). The Company currently intends to use the net proceeds it receives from the Uplist PIPE for product marketing and for general working capital purposes. The purpose of the Uplist PIPE is mainly to assist the Company in meeting the initial listing requirements of the Nasdaq Capital Market, including for purposes of the minimum stockholders' equity requirement and the requirement of the Company to achieve its listing in connection with a firm commitment underwritten public offering.

The closing of the Uplist PIPE is contingent upon, among other conditions, the registration statement of which this prospectus forms a part being declared effective by the SEC and the approval of the listing of the Common Stock on Nasdaq, and the closing is expected to occur immediately prior to the pricing of the Primary Offering.

The Company retained Dawson James Securities, Inc. ("**DJ**"), pursuant to a placement agency agreement, dated November 8, 2023, as placement agent in connection with the Uplist PIPE. The Company will pay DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Uplist PIPE (expected to be $566,400), will reimburse DJ for legal and other expenses of up to $150,000 and will issue to DJ, or its designees, warrants (the "**PIPE Placement Agent Warrants**") to purchase an aggregate of 85,839 shares of Common Stock. The PIPE Placement Agent Warrants will be exercisable at any time and from time to time, in whole or in part, during the five-year period commencing upon issuance, at a price per share equal to $5.15625 (which is 125% of the price per Unit sold in the Primary Offering).

PIPE Pre-Funded Warrants

The PIPE Pre-Funded Warrants (i) will have a nominal exercise price of $0.001 per share; (ii) will be exercisable immediately upon issuance; (iii) will be exercisable until all of the PIPE Pre-Funded Warrants are exercised in full; and (iv) will have have a provision preventing the exercisability of such PIPE Pre-Funded Warrants if, as a result of the exercise of the PIPE Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than either 4.99% or 9.99% of the Common Stock (the "**Ownership Limitation**") immediately after giving effect to the exercise of the PIPE Pre-Funded Warrants.

PIPE Investor Warrants

The PIPE Investor Warrants (i) will have an exercise price of $4.00 per share; (ii) will have a term of exercise equal to 5 years after their issuance date; (iii) will be exercisable immediately upon issuance; and (iv) will have a provision preventing the exercisability of such PIPE Investor Warrants if, as a result of the exercise of the PIPE Investor Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the PIPE Investor Warrants.

Pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which the Primary Offering is intended to be, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants (as defined below), Uplist Conversion Warrants (as defined below) and Exchange Investor Warrants (as defined below) for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the PIPE Investors dated November 8, 2023 (the "**PIPE Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) the closing date of the Uplist Transaction and (ii) the 60th calendar day following the date of the PIPE Registration Rights Agreement one or more registration statements to register the PIPE Warrant Shares, the Uplist Conversion Warrant Shares (as defined below) and the 2022 Note Conversion Pre-Funded Warrant Shares (as defined below) for resale under the Securities Act. The Company's failure to satisfy certain filing and effectiveness deadlines and certain other requirements set forth in the PIPE Registration Rights Agreement may subject the Company to payment of monetary penalties. The Resale Prospectus currently covers the resale of the PIPE Warrant Shares, the Uplist Conversion Warrant Shares and the 2022 Note Conversion Pre-Funded Warrant Shares.

Bridge Offering

Between July 7, 2023 and September 11, 2023, pursuant to a Securities Purchase Agreement dated July 7, 2023, as subsequently amended (the "**Bridge SPA**"), among the Company and certain institutional and accredited individual investors (collectively, the "**Bridge Investors**") the Company issued and sold to the Bridge Investors an aggregate of (i) 418,051 shares (the "**Bridge Shares**") of Common Stock; (ii) warrants (the "**Bridge Pre-Funded Warrants**") to purchase an aggregate of 756,871 shares of Common Stock (the "**Bridge Pre-Funded Warrant Shares**"); and (iii) warrants (the "**Common Warrants**" and together with the Bridge Pre-Funded Warrants, the "**Bridge Warrants**") to purchase an aggregate 2,349,826 shares of Common Stock (the "**Common Warrant Shares**" and together with the Bridge Pre-Funded Warrant Share, the "**Bridge Warrant Shares**"), at a purchase price of $2.20 per Bridge Share and accompanying Common Warrant to purchase two shares of Common Stock, and $2.192 per Bridge Pre-Funded Warrant to purchase one share of Common Stock and accompanying Common Warrant to purchase two shares of Common Stock. The Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants were issued as part of a private placement offering authorized by the Company's board of directors (the "**Bridge Offering**").

Pursuant to the Bridge SPA, the Bridge Investors agreed not to sell or otherwise transfer any of the Bridge Shares or Bridge Warrant Shares prior to the one-year anniversary of the Bridge Closing Date. In the event that a Bridge Investor purchases securities in connection with an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which the Primary Offering is intended to be, and/or in the Uplist PIPE, with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, the one-year lock-up period will no longer apply to the Bridge Shares and Bridge Warrants. The aggregate gross proceeds for the sale of the Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants was approximately $2.6 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The first closing of the sales of these securities under the Bridge SPA occurred on July 7, 2023 (the "**Bridge Closing Date**").

Under the Bridge SPA, the Company also agreed that upon the closing of the next underwritten public offering of Common Stock (a "**Qualifying Offering**"), which the Company agreed is the Primary Offering, if the effective offering price to the public per share of Common Stock (the "**Qualifying Offering Price**") is lower than $32.00 per share, then the Company shall issue additional Bridge Pre-Funded Warrants (the "**True-Up Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**True-Up Pre-Funded Warrant Shares**"), or shares of Common Stock (the "**True-Up Shares**") in lieu thereof to the extent necessary to cause the Company to meet the listing requirements of the Company's proposed trading market in the Uplist Transaction, in an amount reflecting a reduction in the purchase price paid for the Bridge Shares and Bridge Pre-Funded Warrants that equals the proportion by which the Qualifying Offering Price is less than $32.00. The Company also agreed that the Qualifying Offering Price as a result of this offering is $4.00. **Accordingly, at the closing of the Primary Offering, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, the Company expects to issue (i) True-Up Pre-Funded Warrants with an exercise price of $0.001 to purchase an aggregate of 5,695,529 shares of Common Stock and (ii) an aggregate of 2,528,812 True-Up Shares to the Bridge Investors.** The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and the Primary Offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341. The Resale Prospectus currently covers the resale of the True-Up Pre-Funded Warrant Shares and True-Up Shares.

The Company retained DJ as placement agent in connection with the Bridge Offering. The Company paid DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Bridge Offering and reimbursement of expenses of $50,000. Additionally, on September 7, 2023 the Company issued to DJ, or its designees, warrants, as subsequently amended (the "**Placement Agent Warrants**") to purchase an aggregate of 55,242 shares of Common Stock. The Placement Agent Warrants are exercisable at any time and from time to time, in whole or in part, until September 7, 2028, at a price per share equal to $2.20 (which will increase to $5.15625 at the closing of the Uplist Transaction, representing 125% of the assumed price per share of Common Stock in the Uplist Transaction, as required by FINRA).

Bridge Pre-Funded Warrants

The Bridge Pre-Funded Warrants (i) have a nominal exercise price of $0.008 per share; (ii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance, (B) 120 days after the closing date of an Uplist Transaction, and (C) the date that a registration statement registering the Bridge Pre-Funded Warrant Shares is declared effective; (iii) are exercisable until all of the Bridge Pre-Funded Warrants are exercised in full; and (iv) have a provision preventing the exercisability of such Bridge Pre-Funded Warrants if, as a result of the exercise of the Bridge Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Bridge Pre-Funded Warrants.

Common Warrants

The Common Warrants (i) have an exercise price of $8.00 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance and (B) the date that a registration statement registering the Common Warrant Shares is declared effective; (iv) have a provision permitting voluntary adjustments to the exercise price by the Company, subject to the prior written consent of the Common Warrant holder; (v) are automatically exchanged upon the closing of an Uplist Transaction for a new warrant that is identical to the warrants (other than any pre-funded warrants), if any, being issued to investors in such Uplist Transaction, with the number of shares underlying such new warrant being equal to the number of Common Warrant Shares then underlying the Common Warrant multiplied by three and (vi) have a provision preventing the exercisability of such Common Warrants if, as a result of the exercise of the Common Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Company Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Common Warrants. **Accordingly, at the closing of the Primary Offering, the Common Warrants will be cancelled and exchanged for newly issued warrants identical to the Investor Warrants to purchase an aggregate of 7,049,447 shares of Common Stock at an exercise price per share equal to the exercise price per share of the Investor Warrants (the "Exchange Investor Warrants").**

In addition, as noted above, pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Registration Rights Agreement

The Company also entered into a registration rights agreement with the Bridge Investors dated July 7, 2023, as subsequently amended (the "**Registration Rights Agreement**"), pursuant to which the Company is obligated, subject to certain conditions, to file with the Securities and Exchange Commission within the earlier of (i) 30 days following the closing date of the Uplist Transaction and (ii) November 30, 2023 one or more registration statements (any such registration statement, a "**Resale Registration Statement**") to register the Bridge Shares, the Bridge Warrant Shares and the shares of Common Stock issuable upon exercise in full of the Exchange Investor Warrants (the "**Exchange Investor Warrant Shares**") for resale under the Securities Act of 1933, as amended (the "**Securities Act**"). The Company's failure to satisfy certain filing and effectiveness deadlines with respect to a Resale Registration Statement and certain other requirements set forth in the Registration Rights Agreement may subject the Company to payment of monetary penalties. The Resale Prospectus currently covers the resale of the Bridge Shares, the Bridge Warrant Shares and the shares of Common Stock issuable upon exercise of the Placement Agent Warrants.

Note Modification Agreements

On November 8, 2023, the Company entered into an amendment ("**Amendment No. 12 to the First Notes**") with the holders of the Company's outstanding Senior Secured Convertible Promissory Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**First Notes**"), issued in connection with a private placement financing the Company completed on July 6, 2022 (the "**First Closing**"). On November 8, 2023, the Company also entered into an amendment ("**Amendment No. 12 to the Second Notes**") with the holders of the Company's outstanding Unsecured Convertible Promissory Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**Second Notes**"), issued in connection with a private placement financing the Company completed on January 18, 2023 (the "**Second Closing**"). On November 8, 2023, the Company also entered into an amendment ("**Amendment No. 7 to the Third Notes**" and, together with Amendment No. 12 to the First Notes and Amendment No. 12 to the Second Notes, the "**Amendments to the 2022 Notes**") with the holders of the Company's outstanding Unsecured Convertible Promissory Notes, as separately amended on June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "**Third Notes**" and, together with the First Notes and Second Notes, the "**2022 Notes**"), issued in connection with a private placement financing the Company completed on May 15, 2023 (the **Third Closing**").

Under the Amendments to the 2022 Notes, the following amendments to the 2022 Notes will be simultaneously effective upon the closing of the Uplist Transaction. 50% of the then outstanding principal amount of the 2022 Notes shall automatically convert (the "**Automatic Conversion**") into shares of Common Stock, with the conversion price for purposes of such Automatic Conversion being $4.00. Upon the Automatic Conversion and to the extent that the beneficial ownership of a holder of 2022 Notes (a "**Holder**" and, all holders of 2022 Notes together, the "**Holders**") would increase over the applicable Ownership Limitation, the Holder will receive pre-funded warrants (the "**2022 Note Conversion Pre-Funded Warrants**", and the shares issuable upon exercise thereof, the "**2022 Note Conversion Pre-Funded Warrant Shares**") in lieu of shares of Common Stock otherwise issuable to the Holder in connection with the Automatic Conversion, which 2022 Note Conversion Pre-Funded Warrants shall have an exercise price of $0.001 per share, may be exercised on a cashless basis, shall be exercisable immediately upon issuance and shall contain a customary beneficial ownership limitation provision.

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "**Uplist Conversion Warrant**", and the shares issuable upon exercise thereof, the "**Uplist Conversion Warrant Shares**") to purchase a number of shares of Common Stock equal to 6.3812 times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price per share of $4.00 and shall otherwise be identical to the PIPE Investor Warrants. The Company also agreed in the Amendments to the 2022 Notes to file no later than sixty (60) days after the closing of the Primary Offering a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW" (the "**Uplist Conversion Warrants Exchange Offer Obligation**").

The Amendments to the 2022 Notes also prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Accordingly, it is currently anticipated that at the closing of the Primary Offering: (i) an aggregate of 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) will be issued upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, representing 50% of the $6,268,501 in principal amount currently outstanding under the 2022 Notes, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in the Primary Offering of $4.00 per share; and (ii) the Holders will be issued Uplist Conversion Warrants to purchase an aggregate of 20,000,286 shares of Common Stock, representing 6.3812 multiplied by the $3,134,250 of principal amount converted in the Automatic Conversion.

Additionally, on July 7, 2023, the Company entered into an amendment (the "**Omnibus Amendment to Notes and Warrants**") with the Holders of the 2022 Notes, amending the 2022 Notes and related warrants issued at each of the First Closing, Second Closing, and Third Closing (the "**First Warrants**", "**Second Warrants**" and "**Third Warrants**", respectively, and collectively, the "**2022 Warrants**"). Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes and 2022 Warrants were amended to modify the Most Favored Nation provisions therein to exclude the Bridge Offering.

2022 Notes

The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the issuance date until the 2022 Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes. The 2022 Notes mature January 6, 2024. Any amount of principal or interest on the 2022 Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full. As of October 25, 2023, the outstanding unpaid principal balance including all accrued interest under the 2022 Notes totaled $7,004,722.

The 2022 Notes are convertible into shares of Common Stock at the option of each Holder from the date of issuance at $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision (as defined below)), subject to adjustment, through the later of (i) January 6, 2024 (the "**Maturity Date**") or (ii) the date of payment of the Default Amount (as defined in the 2022 Notes).

The 2022 Notes contain events of default, which include, among other things, (i) the Company's failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our failure to complete an Uplist Transaction by November 15, 2023 and (iii) our default on the Uplist Conversion Warrant Exchange Offer Obligation.

The 2022 Warrants (i) have an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrants if, as a result of the exercise of the 2022 Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. Pursuant to the "**Most Favored Nation Provision**" contained in the 2022 Notes and the 2022 Warrants, as long as the 2022 Notes and 2022 Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes and 2022 Warrants of such more favorable terms, and to use best efforts to effect such terms in the 2022 Notes and 2022 Warrants.

As discussed above, it is currently anticipated that 50% of the of the $6,268,501 unpaid principal balance currently outstanding under the 2022 Notes will convert into 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) in connection with the Automatic Conversion.

Under the Second Amended and Restated Registration Rights Agreement, dated as of May 15, 2023, as amended, the Company is required to file a registration statement registering the securities issued in the Second Closing and Third Closing, including the applicable 2022 Notes and 2022 Warrants, no later than 45 days following the closing of the Uplist Transaction. The Resale Prospectus currently covers the resale of the shares of Common Stock issuable upon the Automatic Conversion, the shares of Common Stock issuable upon conversion of the 2022 Notes at their regular conversion price and the shares of Common Stock issuable upon exercise of the 2022 Warrants.

Series 1 and 2 Convertible Notes

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ("**Series 1 Notes**") and Series 2 Convertible Notes, as amended ("**Series 2 Notes**", and collectively with the Series 1 Notes, the "**Series Convertible Notes**"). The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes, which had an aggregate of $718,918 of principal and interest outstanding at the time of conversion.

As of October 25, 2023, there was $587,959 of principal and accrued interest (through maturity) outstanding under the Series 2 Notes. The Series 2 Notes have a conversion price of $400.00 and allow the Company to convert all obligations thereunder upon the Uplist Transaction, or the maturity date, using such conversion price and multiplying the obligations then outstanding by 4.5. **Accordingly, it is currently anticipated that an aggregate of 6,615 shares of Common Stock will be issued at the closing of the Primary Offering upon the conversion of the remaining outstanding amount under the Series 2 Notes.**

Insurance Financing

On July 11, 2023, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is approximately $310,000 and incurs interest at a rate of 7.49%. Per the terms of its agreement with First Insurance Funding, the Company is required to make monthly payments of approximately $32,000 through April 2024.

Warrant Exchange Agreement

On March 10, 2023, the Company entered into exchange agreements (the "**Exchange Agreements**") with each holder (the "**Warrantholders**") of the Company's outstanding Series G Warrants to purchase shares of the Company's Common Stock at an exercise price of $1,120.00 per share and the Company's outstanding Series H Warrants to purchase shares of Common Stock at an exercise price of $640.00 per share. Pursuant to the Exchange Agreements, the Warrantholders exchanged 4,252 Series G Warrants for 426 shares of Common Stock and 5,385 Series H Warrants for 1,078 shares of Common Stock.

Reimbursements and Support Program

During the month of September 2022, the Company launched and announced a reimbursement support program designed to help drive increased commercial use of the company's FDA-approved AC5 Advanced Wound System. During the fiscal year ended September 30, 2022, the Company invoiced and shipped a total of 33 units, of which 23 units were shipped in connection with the launch of the Company's reimbursement support program. Under the terms of the program, the invoice amount may be adjusted through full or partial write-offs based on actual reimbursement amounts paid by CMS for AC5 units applied and billed by doctors. As such, revenue, if any, for the units shipped in connection with the Company's reimbursement support program will be booked in future periods when all conditions have been satisfied.

Results of Operations

The following discussion of our results of operations should be read together with the consolidated financial statements included in this prospectus and the notes thereto. Our historical results of operations and the period-to-period comparisons of our results of operations that follow are not necessarily indicative of future results.

Nine Months Ended June 30, 2023 Compared to Nine Months Ended June 30, 2022

	June 30, 2023 ($)	June 30, 2022 ($)	Increase (Decrease) ($)
Revenue	36,207	14,086	22,121
Operating Expense:			
Cost of revenues	54,882	51,363	3,519
Selling, general and administrative	3,225,753	3,308,227	(82,474)
Research and development	471,135	922,120	(450,985)
Loss from Operations	(3,715,563)	(4,267,624)	(552,061)
Other (Expense) Income	(810,077)	880,329	1,690,406
Net loss	(4,525,640)	(3,387,295)	(1,138,345)

Revenue

Revenue for the nine months ended June 30, 2023 was $36,207, an increase of $22,121 compared to revenue of $14,086 for the nine months ended June 30, 2022. Revenue for the nine months ended June 30, 2023 and 2022 was primarily the result of transactions into VA Hospitals through our distribution partner, LGS.

Cost of Revenue

Cost of revenue during the nine months ended June 30, 2023 was $54,882 an increase of $3,519 compared to cost of revenue of $51,363 for the nine months ended June 30, 2022. Cost of revenue includes product costs, third party warehousing, overhead allocation, royalty and shipping costs.

Selling, General and Administrative Expense

Selling, general and administrative expense during the nine months ended June 30, 2023 was $3,225,753, a decrease of $82,474 compared to $3,308,227 for the nine months ended June 30, 2022. The decrease in selling, general and administrative expense for the nine months ended June 30, 2023 is primarily attributable to a decrease in compensation costs attributed to a reduction in headcount partially offset by an increase in legal and consulting costs.

Research and Development Expense

Research and development expense during the nine months ended June 30, 2023 was $471,135 a decrease of $450,985 compared to $922,120 for the nine months ended June 30, 2022. The decrease in research and development expense is primarily attributable to a decrease in compensation costs attributed to a reduction in headcount.

Other (Expense) Income

Other expense during the nine months ended June 30, 2023 was $810,077 an increase of $1,690,406 compared to other income of $880,329 for the nine months ended June 30, 2022. The increase in other (expense) income is primarily attributed to an increase in interest expense related to the 2022 Notes, Second Notes and Third Notes offset by a gain for the extinguishment of the Series G warrants and Series H warrants derivative liabilities during the nine months ended June 30, 2023 and the impact of the expiration of the Series F warrants during the nine months ended June 30, 2022.

Year Ended September 30, 2022 Compared to Year Ended September 30, 2021

	September 30, 2022	September 30, 2021	Increase (Decrease)
	($)	($)	($)
Revenue	15,652	11,565	4,087
Operating Expenses			
Cost of revenues	51,489	26,282	25,207
Selling, general and administrative	4,519,636	5,009,323	(489,687)
Research and development	1,153,333	1,353,084	(199,751)
Loss from Operations	(5,708,806)	(6,377,124)	668,318
Other income	432,952	136,642	296,310
Net loss	(5,275,854)	(6,240,482)	964,628

Revenue

Revenue for the year ended September 30, 2022 was $15,652, an increase of $4,087 compared to $11,565 for the year ended September 30, 2021. Revenue for the year ended September 30, 2022 was the result of four transactions into multiple VA Hospitals consisting of ten (10) total units through our distribution partner, LGS. Revenue for the year ended September 30, 2021 was $11,565, which was the result of a single transaction with an established key opinion leader and a single transaction into the Veterans Administration of one (1) unit through our distribution partner, LGS.

Cost of revenues

Cost of revenues during the year ended September 30, 2022 was $51,489, an increase of $25,207 compared to $26,282 for the year ended September 30, 2021. Cost of revenue includes product costs, third party warehousing, overhead allocation, royalty and shipping costs.

Selling, General and Administrative Expense

General and administrative expense during the year ended September 30, 2022 were $4,519,636 a decrease of $489,687 compared to $5,009,323 for the year ended September 30, 2021. The decrease in selling, general and administrative expense for the year ended September 30, 2022 is primarily attributable to decrease in legal and consulting costs partially offset by an increase in compensation costs attributed to an increase in headcount.

Research and Development Expense

Research and development expense during the year ended September 30, 2022 was $1,153,333, a decrease of $199,751 compared to $1,353,084 for the year ended September 30, 2021. The decrease in research and development expense is primarily attributable to a decrease in compensation costs, partially offset by an inventory obsolescence charge of approximately $248,000 for shelf-life, research and development and product samples.

O*ther Income*

Other income during the year ended September 30, 2022 was $432,952, an increase of $296,310 compared to total other income of $136,642 for the year ended September 30, 2021. The increase in other income is attributable to a change in fair market value of the derivative liabilities partially offset by an increase in interest expense and the gain on the forgiveness of PPP loan recorded in the year ended September 30, 2021.

Liquidity and Capital Resources

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5 Advanced Wound System. We devote a significant amount of our efforts on fundraising as well as planning and conducting product research and development and activities in connection with obtaining regulatory marketing authorization. We have principally raised capital through borrowings and the issuance of convertible debt and units consisting of Common Stock and warrants to fund our operations.

Working Capital

At June 30, 2023, we had total current assets of $1,560,018 (including cash of $86,542) and working capital deficit of $8,019,256. Our working capital as of June 30, 2023 and September 30, 2022 are summarized as follows:

	June 30, 2023	September 30, 2022
Total Current Assets	$ 1,560,018	$ 2,598,195
Total Current Liabilities	9,579,274	3,320,494
Working Capital deficit	$ (8,019,256)	$ (722,299)

Total current assets as of June 30, 2023 were $1,560,018, a decrease of $1,038,177 compared to $2,598,195 as of September 30, 2022. The decrease in current assets is primarily attributable to a decrease in cash and prepaid expenses. Our total current assets as of June 30, 2023 and September 30, 2022 were comprised primarily of cash, inventory and prepaid expenses and other current assets.

Total current liabilities as of June 30, 2023 were $9,579,274, an increase of $6,258,780 compared to $3,320,494 as of September 30, 2022. The increase is primarily due to an increase in accounts payable, the current portion of the Series 2 Convertible Notes, the current portion of the 2022 Notes, current portion of the Unsecured convertible notes, which includes both the Second Notes, the Third Notes and the Exchanged Notes, Shareholder and Third Party advances related to bridge financing and the accrued interest associated with these notes partially offset by a decrease to the amount owed in connection with the financing of certain insurance premiums and the decrease in the fair value of the derivative liability resulting from the exchange of the Series G warrants into Common Stock.

At September 30, 2022, we had total current assets of $2,598,195 (including cash of $746,940) and negative working capital of $722,299. Our working capital as of September 30, 2022 and September 30, 2021 is summarized as follows:

	September 30, 2022	September 30, 2021
Total Current Assets	$ 2,598,195	$ 3,667,745
Total Current Liabilities	3,320,494	1,727,547
Working Capital	$ (722,299)	$ 1,940,198

Total current assets as of September 30, 2022 were $2,598,195, a decrease of $1,069,550 compared to $3,667,745 as of September 30, 2021. The decrease in current assets is primarily attributable to selling, general and administrative expense and research and development expense incurred in connection with activities to develop our primary product candidate, which was partially offset by our net proceeds from our 2022 Private Placement Financing. Our total current assets as of September, 2022 and 2021 were comprised primarily of cash, inventory and prepaid expense.

Total current liabilities as of September 30, 2022 were $3,320,494, an increase of $1,592,947 compared to $1,727,547 as of September 30, 2021. The increase is primarily due to an increase in accounts payable, current portion of the Series 1 Convertible Notes, current portion of the Series 1 accrued interest and the amount owed in connection with the financing of certain insurance premiums and the current portion of the derivative liability.

Cash Flow for the Nine Months Ended June 30, 2023 Compared to the Nine Months Ended June 30, 2022

	June 30, 2023	June 30, 2022
Cash Used in Operating Activities	$ (2,147,480)	$ (2,786,642)
Cash Provided by Financing Activities	1,487,082	575,000
Net decrease in Cash	$ (660,398)	$ (2,211,642)

Cash Used in Operating Activities

Cash used in operating activities decreased by $639,162 to $2,147,480 during the nine months ended June 30, 2023, compared to $2,786,642 during the nine months ended June 30, 2022. The decrease in cash used in operating activities is primarily attributable the Company managing expenses and an increase in accounts payable and accrued interest.

Cash Used in Financing Activities

Cash provided by financing activities increased by $912,082 to $1,487,082 during the nine months ended June 30, 2023, compared to $575,000 cash provided by financing activities during the nine months ended June 30, 2022. For the nine months ended June 30, 2023, the cash provided by financing activities was attributable to the Second Closing of the 2022 Convertible Note Offering, the Third Closing of the 2022 Convertible Note Offering and shareholder advances, which was partially offset by payments made in connection with the financing of certain insurance premiums. For the nine months ended June 30, 2022, the cash provided by financing activities resulted from net proceeds of $575,000 raised from the advances from investors.

Ca*sh Flow for the Year Ended September 30, 2022 Compared to the Year Ended September 30, 2021*

	September 30, 2022	September 30, 2021
Cash Used in Operating Activities	$ (4,456,075)	$ (5,958,628)
Cash Used in Investing Activities	-	(3,275)
Cash Provided by Financing Activities	2,936,376	7,269,233
Net Increase (decrease) in Cash	$ (1,519,699)	$ 1,307,330

Cash Used in Operating Activities

Cash used in operating activities decreased $1,502,553 to $4,456,075 during the fiscal year ended September 30, 2022 compared to $5,958,628 for the fiscal year ended September 30, 2021. The decrease in cash used in operating activities is primarily attributable to an increase in accounts payable, primarily attributable to increased legal fees, product costs and consulting fees, and accrued interest, which was partially offset by an increase in inventory.

Cash Used in Investing Activities

Cash used in investing activities decreased $3,275 to $0 during the fiscal year ended September 30, 2022, compared to $3,275 during the fiscal year ended September 30, 2021. For the fiscal year ended September 30, 2021, cash used in investing activities is attributed to computer hardware purchases.

Cash Provided by Financing Activities

Cash provided by financing activities decreased $4,332,857, to $2,936,376 during the fiscal year ended September 30, 2022, compared to $7,269,233 the fiscal year ended September 30, 2021. For the year ended September 30, 2022, the cash provided by financing activities resulted from net proceeds of $2,969,586 raised from the issuance of senior secured convertible notes, warrants and inducement shares partially offset by repayment of financed insurance premium. For the year ended September 30, 2021, the cash provided by financing activities resulted from net proceeds of $6,219,233 raised from issuance of Common Stock and warrants in the 2021 Financing and $1,050,000 from the issuance of Series 2 Convertible Notes.

Cash Requirements

We anticipate that our operating expenses, interest expense and other expenses will increase significantly as we continue to implement our business plan and pursue our operational goals. Depending upon additional input from EU and US regulatory authorities, however, we do not expect to generate sufficient revenues from operations before we will need to raise additional capital. Further, our estimates regarding our use of cash could change if we encounter unanticipated difficulties or other issues arise, including without limitation those set forth under the heading "**Risk Factors**" in this prospectus in which case our current funds may not be sufficient to operate our business for the period we expect.

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5 Advanced Wound System. That revenue will not be sufficient to fund our business operations and we will need to obtain additional funding from external sources for the foreseeable future. We do not have any commitments for future capital. Significant additional financing will be required to fund our planned operations in the near term and in future periods, including research and development activities relating to our potential new product candidates, seeking regulatory approval of any other product candidates we may choose to develop, commercializing any product candidates for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or businesses, and maintaining our intellectual property rights and pursuing rights to new technologies. We may not be able to obtain additional financing on commercially reasonable or acceptable terms when needed, or at all. If we cannot raise the money that we need in order to continue to develop our business, we will be forced to delay, scale back or eliminate some or all of our proposed operations. If any of these were to occur, there is a substantial risk that our business would fail, and our stockholders could lose all of their investments.

As previously noted, since inception we have funded our operations primarily through equity and debt financings and we expect to continue to seek to do so in the future. If we obtain additional financing by issuing equity securities, our existing stockholders' ownership will be diluted. Additionally, the terms of securities we may issue in future capital-raising transactions may be more favorable for our new investors, and in particular may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have additional dilutive effects. If we obtain additional financing by incurring debt, we may become subject to significant limitations and restrictions on our operations pursuant to the terms of any loan or credit agreement governing the debt. Further, obtaining any loan, assuming a loan would be available when needed on acceptable terms, would increase our liabilities and future cash commitments. We may also seek funding from collaboration or licensing arrangements in the future, which may require that we relinquish potentially valuable rights to our product candidates or proprietary technologies or grant licenses on terms that are not favorable to us. Moreover, regardless of the manner in which we seek to raise capital, we may incur substantial costs in those pursuits, including investment banking fees, legal fees, accounting fees, printing and distribution expenses and other related costs. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA and 2022 Notes SPA, associated with the 2022 Notes Financing, in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "**Risk Factors**" in this prospectus.

Going Concern

We have commenced commercial sales of our first product, AC5 Advanced Wound System. From inception, we have had recurring losses from operations. The continuation of our business as a going concern is dependent upon raising additional capital and eventually attaining and maintaining profitable operations. As of June 30, 2023, there is substantial doubt about the Company's ability to continue as a going concern. The financial statements included in this prospectus do not include any adjustments that might be necessary should operations discontinue.

Critical Accounting Policies and Significant Judgments and Estimates

Pursuant to certain disclosure guidance issued by the SEC, the SEC defines "critical accounting policies" as those that require the application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. We do not believe the company has any accounts or circumstances that carry a significant level of estimation uncertainty. Our critical accounting policies that we anticipate will require the application of our most difficult, subjective or complex judgments are as follows:

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with the Financial Accounting Standards Board ("**FASB**") Accounting Standards Codification ("**ASC**") Topic 815, *Derivatives and Hedging*. Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate.

Inventories

Inventories are stated at the lower of cost or net realizable value. The cost of inventories comprises expenditures incurred in acquiring the inventories, the cost of conversion and other costs incurred in bringing them to their existing location and condition. The cost of raw materials, work-in-progress and finished goods and other products are determined on a First in First out (FiFo) basis. When determining net realizable value, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors in evaluating net realizable value.

Complex Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks. The Company evaluates its financial instruments, including warrants, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. The Company values its derivatives using the Black-Scholes option-pricing model or other acceptable valuation models, including Monte-Carlo simulations. Derivative instruments are valued at inception, upon events such as an exercise of the underlying financial instrument, and at subsequent reporting periods. The classification of derivative instruments, including whether such instruments should be recorded as liabilities, is re-assessed at the end of each reporting period.

The Company reviews the terms of debt instruments, equity instruments, and other financing arrangements to determine whether there are embedded derivative features, including embedded conversion options that are required to be bifurcated and accounted for separately as a derivative financial instrument. Additionally, in connection with the issuance of financing instruments, the Company may issue freestanding options and warrants, including options or warrants to non-employees in exchange for consulting or other services performed.

The Company accounts for its common stock warrants in accordance with ASC 815, Derivatives and Hedging ("**ASC 815**"). Based upon the provisions of ASC 815, the Company accounts for common stock warrants as liabilities if the warrant requires net cash settlement or gives the holder the option of net cash settlement, or it fails the equity classification criteria. The Company accounts for common stock warrants as equity if the contract requires physical settlement or net physical settlement or if the Company has the option of physical settlement or net physical settlement and the warrants meet the requirements to be classified as equity. Common stock warrants classified as liabilities are initially recorded at fair value on the grant date and remeasured at fair value each balance sheet date with the offset adjustments recorded in change in fair value of warrant liability within the consolidated statements of operations. Common stock warrants classified as equity are initially measured at fair value on the grant date and are not subsequently remeasured.

Recent Accounting Guidance

In August 2020, the FASB issued ASU 2020-06, "*Debt with Conversion and other* Options (Subtopic 470-20) and *Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40)*" ("**ASU 2020-06**"). The purpose of ASU 2020-06 is to address issues identified as a result of the complexity associated with applying generally accepted accounting principles ("**GAAP**") for certain financial instruments with characteristics of liabilities and equity. The amendments in ASU 2020-06 are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2023. Early adoption is permitted but no earlier than fiscal years beginning after December 15, 2020. The Company adopted ASU 2020-06 during our first quarter of fiscal year 2022, and the impact was considered immaterial on our consolidated financial statements.

Off-Balance Sheet Arrangements

We have no significant off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to stockholders.

OUR BUSINESS

Corporate Overview

Arch Therapeutics, Inc. (together with its subsidiary, the "**Company**" or "**Arch**") arose from the June 26, 2013 merger (the "**Merger**") of three entities previously known as Arch Biosurgery, Inc., Almah, Inc., and Arch Acquisition Corporation, respectively.

Arch Biosurgery, Inc. ("**ABS**") is a biotechnology company that was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc., changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. on April 7, 2008, and, as part of the Merger transaction, changed its name from Arch Therapeutics, Inc. to Arch Biosurgery.

Almah, Inc., was incorporated under the laws of the State of Nevada on September 16, 2009 and, as part of the Merger transaction, changed its name to Arch Therapeutics, Inc. and abandoned both its prior business plan and operations in order to adopt those of ABS.

Arch Acquisition Corporation, or Merger Sub, was a wholly owned subsidiary of Almah, Inc., formed for the purpose of the Merger transaction, pursuant to which Merger Sub merged with and into ABS, and ABS thereafter became the wholly owned subsidiary of the Company.

The Company's principal offices are located in Framingham, Massachusetts.

The Company has recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5 Advanced Wound System, its first product. To date, the Company has principally raised capital through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of Common Stock and warrants.

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of current and potential products. However, there can be no assurance that the Company will be successful in securing additional capital when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern for one year past the issuance of the financial statements. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Our Current Business

We are a biotechnology company marketing a number of products based on our innovative AC5 self-assembling technology platform. We believe these products are important advances in the field of stasis and barrier applications, which includes managing wounds created during surgery, trauma, interventional care or disease; stopping bleeding (hemostasis); and controlling leaking (sealant). We have recently devoted substantially all of our operational effort to the market adoption and commercial sales of AC5 Advanced Wound System, our first product. Our goal is to make care faster and safer for patients with products for use on external wounds, which we refer to as Dermal Sciences applications, and products for use inside the body, which we refer to as BioSurgery applications.

To date, the Company has principally raised capital through debt borrowings, the issuance of convertible debt and the issuance of units consisting of its common stock, par value $0.001 per share ("**Common Stock**"), and warrants. The Company expects to incur substantial expenses for the foreseeable future relating to the research, development, clinical trials, and commercialization of its current and potential products. As of October 25, 2023, we do not believe that our cash on hand will meet our anticipated cash requirements through the end of November 2023, and we must obtain additional financing in order to continue to operate our business. The Company will be required to raise additional capital, obtain alternative means of financial support, or both, in order to continue to fund operations. There can be no assurance that the Company will be successful in securing additional resources when needed on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern.

Commercial Update

During its fourth fiscal quarter ended September 30, 2023, the Company experienced a significant increase in AC5 orders, posting record monthly order volumes during both August and September. Taken together, orders from August and September represented more than half of total fiscal year volume, and September orders more than doubled August orders. The Company also observed favorable coverage and reimbursement decisions from multiple payors in different regions of the country with a commensurate increase in paid claims. Early in the fourth fiscal quarter, the Company received its first payment from a provider as a result of a paid claim for reimbursement of AC5 using A2020, and the number of paid claims across different payor networks increased throughout the quarter. The trend has continued into November 2023.

Core Technology

Our flagship products and product candidates are derived from our AC5 self-assembling peptide ("**SAP**") technology platform and are sometimes referred to as AC5 or the "AC5 Devices." These include AC5 Advanced Wound System and AC5 Topical Hemostat, which have received marketing authorization as medical devices in the United States and Europe, respectively, and which are intended for skin applications, such as the management of complicated chronic wounds and acute surgical wounds. Marketing for AC5 Topical Hemostat in Europe has not initiated. Other products are in development for use in minimally invasive or open surgical procedures, and include, for example, AC5-G™ for gastrointestinal endoscopic procedures and AC5-V and AC5 Surgical Hemostat for hemostasis inside the body, all of which are currently investigational devices limited by law to investigational use.

Products based on the AC5 platform contain a proprietary biocompatible peptide that is synthesized from proteogenic, naturally occurring L-amino acids. Unlike products that contain traditional peptide sequences, when applied to a wound, AC5-based products intercalate into the interstices of the tissue and self-assemble (i.e., self-build) into a protective physical-mechanical nanoscale structure that can provide a barrier to leaking substances, such as blood, while also acting as a biodegradable scaffold that enables healing. Self-assembly is a central component of the mechanism of action of our technology. Individual AC5 peptide units readily build themselves, or self-assemble, into an ordered network of nanofibrils when in aqueous solution by the following process:

- Peptide strands line up with neighboring peptide strands, interacting via hydrogen bonds (non-covalent bonds) to form a ribbon-like structure called a beta sheet.
- This process continues such that hundreds of strands organize with charged and polar side chains oriented on one face and non-polar side chains oriented on the opposite face of the beta sheets.
- Interactions of the resulting structure with water molecules and ions results in formation nanofibrils, which extend in length and can join together to form larger nanofibers.
- This network of AC5 peptide nanofibers forms the semi-solid physical-mechanical barrier that interacts with the extracellular matrix, is responsible for sealant, hemostatic and/or other properties that may be observed even in the presence of antithrombotic agents (i.e., blood thinners), and which subsequently becomes the scaffold that supports the repair and regeneration of damaged tissue.

Based on the intended application, we believe that the underlying AC5 SAP technology can impart important features and benefits to our products that may include, for instance, stopping bleeding (hemostasis), mitigating contamination, modulating inflammation, donating moisture, and enabling an appropriate wound microenvironment conducive to healing. Furthermore, we believe that AC5 SAP technology permits cell and tissue growth and is self-healing, in that it can dynamically self-repair around migrating cells. For instance, AC5 Advanced Wound System, which is indicated for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds, is shipped and stored at room temperature, is applied directly as a liquid, can conform to irregular wound geometry, self-assembles into a wound care matrix that can provide clinicians with multi-modal support, and does not possess sticky or glue-like handling characteristics. We believe these properties enhance its utility in several settings and contribute to its user-friendly profile.

We believe that our technology lends itself to a range of potential applications for wounds inside or on the body, including those for which a hemostatic agent or sealant is needed. For instance, the results of certain preclinical and clinical investigations that either we have conducted, or others have conducted on our behalf, have shown quick and effective hemostasis with the use of AC5 SAP technology, and that time to hemostasis ("**TTH**") is comparable among test subjects regardless of whether such test subject had or had not been treated with therapeutic doses of anticoagulant or antiplatelet medications, commonly called "blood thinners." Furthermore, the transparency and physical properties of certain AC5 Devices may enable a surgeon to operate through it in order to maintain a clearer field of vision and prophylactically stop or lessen bleeding as surgery starts, a concept that we call Crystal Clear Surgery™. An example of a product that contains related features and benefits is AC5 Topical Hemostat, which is indicated for use as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound. AC5 Topical Hemostat has not yet been marketed in Europe but has received marketing authorization.

Operations

Much of our operational efforts to date, which we often perform in collaboration with partners, have included selecting compositions and formulations for our initial products; conducting preclinical studies, including safety and other tests; conducting a human trial for safety and performance of AC5; developing and conducting a human safety study to assess for irritation and sensitization potential; securing marketing authorization for our first product in the United States and in Europe; supporting surgeons performing clinical case studies; obtaining post-marketing clinical data; developing, optimizing, and validating manufacturing methods and formulations, which are particularly important components of self-assembling peptide development; developing methods for manufacturing scale-up, reproducibility, and validation; engaging with regulatory authorities to seek early regulatory guidance as well as marketing authorization for our products; sourcing and evaluating commercial partnering opportunities in the United States and abroad; and developing and protecting the intellectual property rights underlying our technology platform.

Our long-term business plan includes the following goals:

- Continue to build recent commercial momentum and grow revenues by driving awareness, adoption and payment policies for AC5 Advanced Wound System with the now-effective Centers for Medicare and Medicaid Services ("**CMS**") Level II Healthcare Common Procedure Coding System ("**HCPCS**") code dedicated to the "AC5";
- educating the wound care field and growing commercial sales;
- conducting biocompatibility, pre-clinical, and clinical studies on our products and product candidates;
- obtaining additional marketing authorization for products in the United States, Europe, and other jurisdictions as we may determine;
- continuing to develop third party relationships to manufacture, distribute, market and otherwise commercialize our products;
- continuing to develop academic, scientific and institutional relationships to collaborate on product research and development;
- expanding and maintaining protection of our intellectual property portfolio; and
- developing additional product candidates in Dermal Sciences, BioSurgery, and other areas.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding as required to support the previously described milestones necessary to support operations;
- work with our manufacturing partners to scale up production of product compliant with cGMP, which activities will be ongoing and tied to our development and commercialization needs;
- further clinical development of our product platform;
- assess our technology platform in order to identify and select product candidates for potential advancement into development;
- seek regulatory input to guide activities related to expanded and new product marketing authorizations;
- continue to expand and enhance our financial and operational reporting and controls;
- pursue commercial partnerships; and
- expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and/or adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio.

We have no commitments for any future capital. We will require significant additional financing to fund our planned operations, including further research and development relating to AC5, seeking regulatory approval of any product we may choose to develop, commercializing any product for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or business, and maintaining our intellectual property rights, pursuing new technologies and for financing the investor relations and incremental administrative costs associated with being a public corporation. We do not presently have, nor do we expect in the near future to have, sufficient revenue to fund our business from operations, and we will need to obtain substantially all of our necessary funding from external sources for the foreseeable future. We may not be able to obtain additional financing on commercially reasonable or acceptable terms when needed, or at all. If we cannot raise the money that we need in order to continue to develop our business, we will be forced to delay, scale back or eliminate some or all of our proposed operations. If any of these were to occur, there is a substantial risk that our business would fail, and our stockholders could lose all of their investment.

Since inception, we have funded our operations primarily through debt borrowings, the issuance of convertible debt and the issuance of units consisting of Common Stock and warrants, and we may continue to seek to do so in the future. If we obtain additional financing by issuing equity securities, our existing stockholders' ownership will be diluted. The terms of securities we may issue in future capital-raising transactions may be more favorable for our new investors. Further, newly issued securities may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have additional dilutive effects. If we obtain additional financing by incurring debt, we may become subject to significant limitations and restrictions on our operations pursuant to the terms of any loan or credit agreement governing the debt. Further, obtaining any loan, assuming a loan on acceptable terms would be available when needed, would increase our liabilities and future cash commitments. We may also seek funding from additional collaboration or licensing arrangements in the future, which may require that we relinquish potentially valuable rights to our product candidates or proprietary technologies or grant licenses on terms that are not favorable to us. Moreover, regardless of the manner in which we seek to raise capital, we may incur substantial costs in those pursuits, including investment-banking fees, legal fees, accounting fees, printing and distribution expenses and other related costs. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term including, but not limited to, provisions in the Bridge SPA, PIPE SPA and securities purchase agreement dated July 6, 2022, as amended (the " **2022 Notes SPA**"), associated with the sale of the 2022 Notes (the "**2022 Notes Financing**"), in each case as described in greater detail in the risk factor entitled "***The terms of the Bridge Offering, Uplist PIPE and 2022 Notes Financing could impose additional challenges on our ability to raise funding in the future*** " under the heading "Risk Factors" in this prospectus.

In addition to the foregoing, our estimated capital requirements potentially could increase significantly if a number of risks relating to conducting these activities were to occur, including without limitation those set forth under the heading "**Risk Factors**" in this prospectus.

Merger with ABS and Related Activities

On June 26, 2013, the Company completed the Merger with ABS, pursuant to which ABS became a wholly owned subsidiary of the Company. In contemplation of the Merger, effective June 5, 2013, the Company changed its name from Almah, Inc. to Arch Therapeutics, Inc. and changed the ticker symbol under which its Common Stock trades on the OTC Bulletin Board from "AACH" to "ARTH."

Research and Development

Preclinical and clinical testing of our product candidates is required in order to receive regulatory marketing authorizations and to support products upon commercialization, and we anticipate that such testing will continue as deemed appropriate.

Preclinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and/or perform certain preclinical bench-top and animal research and development studies, typically with assistance from our team. These third parties include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and/or other collaborators.

We have conducted and anticipate continuing to conduct in vivo and in vitro research and development studies on our products and product candidates. A co-founding inventor of certain of our technology, Dr. Rutledge Ellis-Behnke, performed a significant portion of the early preclinical animal experiments conducted with our technology. Some of the most significant findings from Dr. Ellis-Behnke's studies have been published. Additionally, through collaborations with the National University of Ireland system and related parties, preclinical bench-top and animal research and development studies were performed in Dublin, Cork and Galway, Ireland over an approximately eight-year period that concluded in the third quarter of fiscal 2018.

Before initiating our clinical trials and submitting marketing applications for a given product in most jurisdictions, we are required to have completed a biocompatibility assessment, which typically consists of a battery of in vitro and in vivo tests. Standard biocompatibility tests, as set forth in ISO 10993 issued by the International Organization for Standardization, may include:

- in vitro cytotoxicity;
- in vitro blood compatibility;
- in vitro Ames assay (mutagenic activity);
- irritation/intracutaneous reactivity;
- sensitization (allergenic reaction);
- implantation (performed on devices that contact the body's interior);
- pyrogenicity (causing fever or inflammation);
- systemic toxicity; and
- in vitro chromosome aberration assay (structural chromosome changes).

We completed the biocompatibility studies required to receive marketing authorizations for AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and such test results support that the products are biocompatible. We will perform further biocompatibility testing that we deem necessary for additional indications, classifications, jurisdictions, and/or as required by regulatory authorities.

Acute and survival animal studies assessing safety and performance of our technology have also demonstrated favorable outcomes in Dermal Sciences and BioSurgery applications.

Porcine studies, also known as swine or pig studies, are often selected due to the morphological, physiological, and biochemical similarities between porcine skin and human skin and are very useful to assess the performance of AC5 Advanced Wound System or AC5 Topical Hemostat as a barrier and advanced wound dressing, as well as their safety and effects on healing.

In an assessment versus saline in a porcine partial thickness excision wound model, tissue response to AC5 Advanced Wound System over a 28-day follow-up period was consistent with normal wound healing and included complete re-epithelialization, normal collagen organization, and minimal inflammation and TTH was faster.

In an assessment versus both a market leading skin substitute and saline in a porcine full thickness 10 mm punch biopsy wound model, AC5 Advanced Wound System was solely associated with complete epithelialization by the end of the 11-day study.

In an assessment versus each a market leading antimicrobial burn dressing, a hydrogel, and saline in a porcine second degree burn wound model, AC5 Advanced Wound System was associated with less progression of thermal damage and less inflammation over three days.

Arch Therapeutics' technology has also demonstrated hemostasis in liver and other organs in in vivo surgical models, including rapid hemostasis within 15 seconds. In a range of small and large animal models, our compositions have been shown to stop bleeding, seal leaking, allow for normal healing, and mitigate inflammation while being biocompatible.

AC5 Surgical Hemostat demonstrated rapid average TTH when applied to a range of animal tissues. Certain surgical procedure studies have assessed TTH when using AC5 Surgical Hemostat as well as using an active control, a saline control, a peptide control, and a cautery control. The results of those tests have shown a TTH of approximately 10 - 30 seconds when AC5 Surgical Hemostat was applied, compared to 80 seconds to significantly more than 300 seconds when various control substances were applied, depending on the nature of the control substance and procedure performed. In several studies comparing AC5 Surgical Hemostat to popular commercially available branded hemostatic agents (absorbable cellulose, flowable gelatin with and without thrombin, and fibrin) applied to stop the bleeding from full thickness penetrating wounds surgically created in rat livers, AC5 Surgical Hemostat achieved hemostasis in significantly less than 30 seconds, whereas control products took from over 50% - 400% longer to achieve hemostasis.

AC5 Surgical Hemostat was also demonstrated in preclinical tests to stop surgically induced liver bleeding in animals that had been treated with therapeutic amounts of anticoagulant and antiplatelet medications, collectively known as antithrombotic medications and commonly called "blood thinners." In one preclinical study, an independent third-party research group obtained positive data assessing the use of AC5 Surgical Hemostat in animals that had been treated with therapeutic doses of the antiplatelet medications Plavix® (clopidogrel) and aspirin, alone and in combination. The results of the study were consistent with data obtained from two prior preclinical studies, in which AC5 Surgical Hemostat quickly stopped bleeding from surgical wounds created in rats following treatment with clinically relevant doses of the anticoagulant medication heparin. In these studies, the average TTH after AC5 Surgical Hemostat was applied to bleeding liver wounds in animals that had received anticoagulant medication was comparable to the average TTH as measured in their non-anticoagulated counterparts.

AC5-V was assessed for its ability to provide hemostasis after bleeding was intentionally created at vascular reconstruction sites in preclinical studies. In an acute study in swine that had been premedicated with therapeutic doses of heparin before undergoing end-to-end femoral artery anastomosis and synthetic graft to vessel anastomosis in carotid and femoral arteries, AC5-V promoted effective hemostasis at the vascular anastomotic site and allowed for clear visualization of the surgical site.

In a 14-day survival study in sheep that had been premedicated with therapeutic doses of heparin before undergoing end-to-side anastomosis between synthetic vascular grafts and carotid arteries, AC5-V promoted effective hemostasis at the vascular anastomotic site, the graft remained patent during the study as assessed by angiography and ultrasound, clinical observations were normal during the study, and tissue response as assessed by histopathological examination at the end of the study was consistent with expectations for a biodegrading implant.

AC5-G was studied in swine to assess visualization, submucosal lift generation and durability, and hemostatic and sealant performance when used during endoscopic mucosal resections and endoscopic submucosal dissections as well as hemostatic performance during endoscopic management of gastrointestinal bleeding. AC5-G was easily delivered through a 25G endoscopic injection needle into the tissue and provided a durable submucosal lift in the gastric antrum that lasted beyond 2 hours. When delivered with the visualizing agent prior to tissue dissection, AC5-G allowed for easy visualization with both snare and electrosurgical knives, and no visible bleeding was observed following polyp removal. AC5-G was also shown to provide hemostasis in actively bleeding lesions when applied with or without the visualizing agent either topically to a bleeding site or when injected into the nearby mucosa. AC5-G was found to be useful in conjunction with clips as a potential sealant when applied following application of clips to a post-polypectomy site for the purpose of mitigating leaks and potentially enabling healing.

The AC5 self-assembling peptide was studied in an experimental intraocular inflammation model of injected Lipopolysaccharide ("**LPS**"), in which an intraocular application of the peptide with LPS was associated with a marked reduction in retinal inflammation. The density of activated retinal microglial cells was significantly lower in the eyes of the study animals with LPS and AC5 than in the eyes of the LPS-only control group. The results suggest that the AC5 self-assembling peptide may reduce inflammation and may represent a new class of devices that act as anti-inflammatory agents to control ocular inflammation.

Clinical Testing

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain clinical studies and related activities, typically with assistance from our team. These third parties include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and other collaborators.

In order to complete a clinical trial, we are required to enroll a sufficient number of patients to conduct the trial after obtaining each patient's informed consent in a form and substance that complies with FDA and/or other regulatory authority requirements as well as state and federal privacy and human subject protection regulations. Many factors could lead to delays or inefficiencies in conducting clinical trials, some of which are discussed under the heading "**Risk Factors**" in this prospectus. Further, we, the FDA or an institutional review board ("**IRB**") could suspend a clinical trial at any time for various reasons, including a belief that the risks to the subjects of the trial outweigh the anticipated benefits. Even if a trial is completed, the results of clinical testing may not adequately demonstrate the safety and efficacy of the device or may otherwise not be sufficient to obtain FDA clearance or approval to market the product in the U.S.

We completed two clinical studies. The first study, which met its primary and secondary endpoints, assessed the safety and performance of our product candidate in 46 patients with bleeding skin wounds that resulted from excision of skin lesions and followed for 30 days. The second study assessed our product candidate on skin, determining that it was neither an irritant nor a sensitizer, and no immunogenic response or serious or other adverse events attributable to our product were reported in any of the approximately 50 enrolled volunteers. The product candidate in these studies subsequently received marketing authorization and is presently known as AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe.

Post marketing clinical case reports have been published demonstrating both efficacy and safety in a range of challenging acute surgical or chronic wounds on patients.

Regulatory

We have engaged and continue to engage third parties in the United States ("**U.S.**") and abroad to advise on and/or perform certain regulatory activities, typically with assistance from our team. These third parties can include contract research organizations, academic institutions, consultants, advisors, scientists, clinicians, and other collaborators.

Our research, development and clinical programs, as well as our manufacturing and marketing operations that may be performed by us or third-party service providers on our behalf, are subject to extensive regulation in the United States and other countries. Notably, for example, AC5 Advanced Wound System is subject to regulation as a medical device under the U.S. Food Drug and Cosmetic Act (the "**FDCA**") as implemented and enforced by the FDA and equivalent regulations that are enforced by foreign agencies in any other countries in which we pursue commercialization. The FDA and its foreign counterparts generally govern the following activities that we do or will perform or that will be performed on our behalf, as well as potentially additional activities, to ensure that products we may manufacture, promote and distribute domestically or export internationally are safe and effective for their intended uses:

- product design, preclinical and clinical development and manufacture;
- product premarket clearance and approval;
- product safety, testing, labeling and storage;
- certain supply chain changes;
- record keeping procedures;
- product marketing, sales and distribution; and
- post-marketing surveillance, complaint handling, medical device reporting, reporting of deaths, serious injuries or device malfunctions and repair or recall of products.

Medical Device Classification in the United States and Europe

AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe are classified as medical devices. Generally, a product is a medical device if it requires neither metabolic nor chemical activity to achieve the desired effect. Furthermore, a medical device can achieve its desired effects without requiring a body (animal/human), whereas a drug or a biologic requires a body in order to operate. Self-assembly, which is the desired effect and can occur outside of a body, is accordingly consistent with the medical device definition.

Medical devices in the United States and Europe are classified along a spectrum on the basis of the amount of risk to the patient associated with the medical device and the controls deemed necessary to reasonably ensure their safety and effectiveness. Class III status, which is the higher-level classification for devices compared to Classes II and I, involves additional procedures and regulatory scrutiny of the product candidate to obtain approvals. Class III devices are those that are deemed to pose the greatest risks, such as life-sustaining, life-supporting or implantable devices, or that have a new intended use or that use advanced technology not substantially equivalent to that of a legally marketed device.

As a result of the intended use of and the novel technology on which our products and product candidates are based, in general, we anticipate that they would typically be regulated as either Class II or Class III medical device in these jurisdictions, depending upon the intended use. Specifically, AC5 Advanced Wound System is a Class II medical device in the United States, and AC5 Topical Hemostat is a Class IIb medical device in Europe.

In the United States, the FDA recognizes these classes of medical devices:

- Class I, requiring general controls, including labeling, device listing, reporting and, for some products, adherence to good manufacturing practices through the FDA's quality system regulations and pre-market notification;
- Class II, requiring general controls and special controls, which may include performance standards and post-market surveillance; or
- Class III, requiring general controls and approval of a premarket approval application ("**PMA**"), which may include post-market approval conditions and post-market surveillance.

European regulatory authorities, likewise, recognize several classes of medical devices. Classification involves rules found in the European Union Medical Device Directive and is driven in part by the device's degree of contact with the patient, invasiveness, active nature, and indications for use. The medical device classes recognized in the EU are:

- Class IIa, which are considered low-medium risk devices and require certification by a notified body;
- Class IIb, which are considered medium-high risk devices and require certification by a notified body; and
- Class III, which are considered high-risk devices and require certification by a notified body.

United States Class III and certain Class II medical device approvals and European Union Class III and certain Class IIa and IIb medical device approvals may require the successful completion of human clinical trials.

U.S. Regulatory Marketing Authorization Process

Products that are regulated as medical devices and that require review by the FDA are subject to either a premarket notification, also known as a 510(k), which must be submitted to the FDA for clearance, or a PMA application, which the FDA must approve prior to marketing in the United States. The FDA ultimately determines the appropriate regulatory path. For purposes herein, references to regulatory approval and marketing authorization may be used interchangeably.

We believe that the additional products we are currently pursuing for internal use will require a PMA approval prior to commercialization. However, we commercialized an initial product for external use that has been cleared through the 510(k) process. To obtain 510(k) marketing clearance for a medical device, an applicant must submit a premarket notification to the FDA demonstrating that the device is "substantially equivalent" to a predicate device or devices, which is typically a legally marketed Class II device in the United States. A device is substantially equivalent to a predicate device if it has the same intended use and (i) the same technological characteristics, or (ii) has different technological characteristics and the information submitted demonstrates that the device is as safe and effective as a legally marketed device and does not raise different questions of safety or effectiveness. In some cases, the submission must include data from human clinical studies. Marketing may commence when the FDA issues a clearance letter finding substantial equivalence. Depending upon a product's underlying technology and intended use, as well as on FDA processes and procedures, seeking and obtaining a 510(k) can be a lengthy process.

A PMA, which is required for most Class III medical devices, must be submitted to the FDA if a device cannot be cleared through another approval process or is not otherwise exempt from the FDA's premarket clearance requirements. The PMA approval process can be lengthy and expensive. A PMA must generally be supported by extensive data, including without limitation technical, preclinical, clinical trial, manufacturing and labeling data, to demonstrate to the FDA's satisfaction the safety and efficacy of the device for its intended use. Clinical trials for a Class III medical device typically require an application for an investigational device exemption ("**IDE**"), which would need to be approved in advance by the FDA for a specified number of patients and study sites. Clinical trials are subject to extensive monitoring, recordkeeping and reporting requirements, and must be conducted under the oversight of an institutional review board ("**IRB**") for the relevant clinical trial sites and comply with applicable FDA regulations, including those relating to good clinical practices ("**GCP**").

The PMA process is estimated to take from one to three years or longer, from the time the PMA application is submitted to the FDA until an approval is obtained. During the review period, the FDA will typically request additional information or clarification of the information previously provided. Also, experts from outside the FDA may be convened to review and evaluate the PMA and provide recommendations to the FDA as to the approvability of the device, although the FDA may or may not accept any such recommendations. In addition, the FDA will generally conduct a pre-approval inspection of the manufacturing facility or facilities involved with producing the device to ensure compliance with the cGMP regulations. Upon approval of a PMA, the FDA may require that certain conditions of approval, such as conducting a post-market approval clinical trial, be met.

Further, if post-approval modifications are made, including, for example, certain types of modifications to the device's indication for use, manufacturing process, labeling or design, then new PMAs or PMA supplements would be required. PMA supplements often require submission of the same type of information as a PMA, except that the supplement is typically limited to information needed to support the changes from the device covered by the original PMA and accordingly may not require as extensive clinical and other data.

We have not submitted to the FDA a PMA or commenced the required clinical trials for an internal use product. Even if we conduct successful preclinical and clinical studies and submit a PMA for an approval or premarket application for clearance, the FDA may not permit commercialization of our product candidate for the desired internal use indications, on a timely basis, or at all. Our inability to achieve regulatory approval for AC5 in the United States for an internal use product, a large market for hemostatic products, would materially adversely affect our ability to grow our business.

European Union Marketing Authorization (CE Mark) Process

A notified body is a private commercial entity designated by the national government of an European Union ("**EU**") member state as being competent to make independent judgments about whether a medical device complies with applicable regulatory requirements in the EU. Our notified body is The British Standards Institution ("**BSI**").

The EU has adopted numerous directives and standards regulating the design, manufacture, clinical trials, labeling, and adverse event reporting for medical devices, and it has further revised its rules and regulations with increasingly stringent requirements. Each EU member state has implemented legislation applying these directives and standards at a national level. Many countries outside of the EU have also voluntarily adopted laws and regulations that mirror those of the EU with respect to medical devices, potentially increasing the time and cost necessary to potentially achieve an approval in different jurisdictions.

Devices that comply with the requirements of the laws of the selected member state applying the applicable EU directive are entitled to bear a CE (*Conformité Européenne*) mark and can be distributed throughout the member states of the EU, as well as in other countries that have mutual recognition agreements with the EU or have adopted the EU's regulatory standards.

Under applicable European Medical Device Directives (MDD), a CE mark is a symbol placed on a product that declares that the product is compliant with the essential requirements of applicable EU health, safety and environmental protection legislation. In order to receive a CE mark for a product candidate, the company producing the product candidate must select a country in which to apply. Each country in the EU has one competent authority ("**CA**") that implements the national regulations by interpreting the EU directives. CAs also designate and regulate Notified Bodies. An assessment by a notified body in the selected country within the EU is required in order to commercially distribute the device. In addition, compliance with ISO 13485 issued by the International Organization for Standardization, among other standards, establishes the presumption of conformity with the essential requirements for CE mark. Certification to the ISO 13485 standard demonstrates the presence of a quality management system that can be used by a manufacturer for design and development, production, installation and servicing of medical devices and the design, development and provision of related services.

While there are many similarities between the processes required to obtain marketing authorization in the United States and Europe, there are several key differences between the jurisdictions, as well. Obtaining a CE mark is not equivalent to obtaining FDA clearance or approval. For instance, FDA requirements for products typically vary based on whether the submission is for a premarket notification (510(k)) or a premarket approval (PMA) whereas EU requirements for product submissions are primarily based on class. Furthermore, EU submissions must meet precise essential requirements, although the data demonstrating such compliance can vary by class of device. Additionally, a CE mark affixed to a product serves as a declaration by the responsible party that the product conforms to applicable provisions and that relevant conformity assessment procedures have been completed with respect to the product.

In 2017, the European Union regulatory bodies implemented a new Medical Device Regulation ("**MDR**"). The MDR changes several aspects of the existing regulatory framework, such as clinical data requirements, and introduces new ones, such as Unique Device Identification ("**UDI**"). We, and the Notified Bodies who will oversee compliance to the new MDR, face uncertainties in the upcoming years as the MDR is rolled out and enforced, creating risks in several areas, including the CE mark process, data transparency and application review timetables.

Post-Approval Regulation

After a medical device obtains approval from the applicable regulatory agency and is launched in the market, numerous post-approval regulatory requirements would apply. Many of those requirements are similar among the United States and EU member states and include:

- product listing and establishment registration;
- requirements that manufacturers, including third-party manufacturers, follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process;
- labeling and other advertising regulations, including prohibitions against the promotion of products for uncleared, unapproved or off-label use or indication;
- approval of product modifications that affect the safety or effectiveness of any of our devices that may achieve approval;
- post-approval restrictions or conditions, including post-approval study commitments;
- post-market surveillance regulations, which apply, when necessary, to protect the public health or to provide additional safety and effectiveness data for the device;
- the recall authority of the applicable government agency and regulations pertaining to voluntary recalls; and
- reporting requirements, including reports of incidents in which a product may have caused or contributed to a death or serious injury or in which a product malfunctioned, and notices of corrections or removals.

Failure by us, our third-party manufacturers or our other suppliers to comply with applicable regulatory requirements could result in enforcement action by various regulatory authorities, which may result in monetary fines, the imposition of operating restrictions, product recalls, criminal prosecution or other sanctions.

Regulation by Other Foreign Agencies

International sales of medical devices outside the EU may be subject to government regulations in each country in which the device is marketed and sold, which vary substantially from country to country. The time required to obtain approval by a non-EU foreign country may be longer or shorter than that required for FDA or CE mark clearance or approval, and the requirements may substantially differ.

Marketing Authorization (510k) for AC5 Advanced Wound System in the United States

On July 25, 2017, we announced that we had made a 510(k) submission to the FDA for AC5 Topical Gel. On December 18, 2017, we voluntarily withdrew the application after receiving questions from the FDA for which an adequately comprehensive response could not be provided within the FDA's congressionally-mandated 90-day review period. On October 1, 2018, we announced that we both completed the necessary steps required to file a new 510(k) submission to the FDA for AC5 Topical Gel and filed that 510(k) submission during the third calendar quarter. As previously disclosed, these steps included developing a required study protocol and submitting it to the FDA in a pre-submission letter in the first calendar quarter, completing the pre-submission process, initiating the study in the second calendar quarter of 2018 and completing the study. On December 17, 2018, we announced that the 510(k) premarket notification for AC5 Topical Gel had been reviewed and cleared by the FDA, allowing for the product to be marketed.

In line with plans to better harmonize our United States and European product supply chains by using an additional supplier and additional manufacturing processes in the production of AC5 Topical Gel, Arch filed documentation with the FDA seeking such clearance in the United States for these additions, each of which had been incorporated into the technical documentation for the European CE mark filing. On March 23, 2020, we announced that the 510(k) premarket notification for AC5 Topical Gel had been reviewed and cleared by the FDA, allowing for the product to be marketed in the United States with the aforementioned additions. AC5 Topical Gel was subsequently renamed to AC5 Advanced Wound System in the United States.

Marketing Authorization (CE mark) for AC5 Topical Hemostat in Europe

During November 2018 we submitted the required documents for AC5 Topical Hemostat to its notified body seeking a CE mark. During August 2019, we received and responded to customary written and verbal questions related to the technical file, and that BSI had provided and assessed during the review period were acceptable so far. In that announcement, we further expressed our belief that the delay by the regulatory authority in completing the CE mark technical file review appeared to be due to a backlog of work for EU notified bodies related to both Brexit and the implementation of the new EU Medical Devices Regulation.

During April 2020, we received the CE (*Conformité Européenne*) mark for AC5 Topical Hemostat, allowing for commercialization in Europe as a dressing and to control bleeding in external skin wounds in both outpatient and in-patient settings.

Commercialization

Our commercialization efforts are currently focused on Dermal Sciences. Our BioSurgery products for internal use will require additional preclinical and clinical testing before we seek marketing authorization to commercialize them.

Our Dermal Sciences products are AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe, and the indication for use, or purpose, for each product follows, respectively:

- Under the supervision of a health care professional, AC5 Advanced Wound System is a topical dressing used for the management of partial and full-thickness wounds, such as pressure sores, leg ulcers, diabetic ulcers, and surgical wounds.

- AC5 Topical Hemostat is intended for use locally as a dressing and to control mild to moderate bleeding, each during the management of injured skin and the micro-environment of an acute surgical wound.

We have prioritized the launch of AC5 Advanced Wound System in the United States over that of AC5 Topical Hemostat in Europe, where we have not launched, for the foreseeable future to maximize operational efficiencies considering the COVID-19 pandemic.

We expect the Dermal Sciences product commercialization ramp to be initially gradual and then moderately accelerate as we identify and encourage product use by key opinion leaders and early adopters in developing market channels. We are actively concentrating our marketing and selling efforts on doctor's offices, other ambulatory settings, and government facilities, such as hospitals in the Veterans Health Administration ("**VA Hospitals**") and Medical Treatment Facilities. These settings tend to have many patients whose needs we believe can be addressed by AC5 Advanced Wound System because it is a synthetic self-assembling wound care product that provides clinicians with multi-modal support and utility across all phases of wound healing. Numerous published case studies and accolades highlight the efficacy and safety of AC5 in the treatment of challenging chronic and acute surgical wounds, including limb salvage and healing after other modalities have failed.

Securing reimbursement for AC5 Advanced Wound System in ambulatory settings, such as doctor's offices, is an important part of our commercial strategy. Consequently, we applied to the CMS for a dedicated HCPCS Level II billing code specific to AC5 Advanced Wound System on June 29, 2022, which if granted, would better enable providers to bill third party payors for AC5 that is used in doctors' offices. We believe that there is a growing trend toward the use of synthetic wound care products, including those that have been commonly referred to as synthetic skin substitutes. A dedicated HCPCS code is an important step toward, although not a guarantee of, coverage and reimbursement, and it would enhance our ability to work directly with payors as we expand access in outpatient settings and continue to advocate for clinically appropriate usage of our technology for patients. Our application was subsequently approved with a go-live date of April 1, 2023. We have launched a temporary reimbursement support program in line with CMS guidance to support commercial use and adoption of AC5 Advanced Wound System both before and after the go-live date of our unique product code (A2020).

To support commercialization in government facilities, AC5 Advanced Wound System has been added to the Federal Supply Schedule (FSS), General Services Administration (GSA) schedule and the Defense Logistics Agency's Medical Electronic Catalog Program (ECAT) and Distribution and Pricing Agreement (DAPA), enabling purchase by federal government agencies, including the Department of Veterans Affairs (VA), Indian Health Services (IHS), and Department of Defense (DOD) Medical Treatment Facilities effective December 15, 2021.

We envision hiring additional internal sales representatives to help commercialize the Dermal Sciences products.

We have engaged and continue to engage third parties in the United States and abroad to advise on and perform certain sales and marketing activities, typically with assistance from our team. These third parties can include contract organizations, consultants, advisors, scientists, clinicians, and/or other collaborators.

While our core team oversees initial inventory distribution from the warehouse to the customer, our commercialization plans include entering into collaboration agreements with contract sales partners, including independent sales representatives and distributors, and potentially strategic partners. We anticipate that we will enter and periodically terminate certain agreements based on performance or other business criteria.

We are committed to continuous improvement processes. We collect feedback and data when feasible and appropriate to develop and commercialize products that serve patients and doctors; to develop marketing messages; to learn about product use; to evaluate product performance in different settings; to improve our products; to address reimbursement needs, and to support collaborations that we may have or may establish. Data has been and will continue to be collected by informal feedback, observational case reports and/or clinical trials.

We received the CE mark for AC5 Topical Hemostat in April 2020. We announced receipt of 510(k) premarket notification clearances for AC5 Advanced Wound System in December 2018, providing marketing authorization, and on March 23, 2020, clearing use of an additional supplier and additional manufacturing processes.

The COVID-19 Pandemic Impact on Commercialization

The COVID-19 pandemic environment introduced significant challenges related to product launch, marketing and sales, as clinicians and facilities became overburdened and increasingly focused on managing resources, the disease, and the virus spread. While the overall environment has improved, many negative effects linger. We have observed the following effects at different times, and anticipate that they will variously wax and wane over time:

- the volume of elective surgical procedures has been constrained periodically, with many institutions indefinitely suspending or eliminating such procedures at times;
- healthcare facilities often have been required to ration staff and resources, including ventilators, personal protective equipment ("**PPE**"), and operating rooms, thereby negatively impacting the focus on wound care;
- clinicians often have been required to divert their time and resources to urgent COVID-19 needs;
- clinicians often have been required to quarantine due to exposure to a COVID-19 positive individual or isolate because of contracting symptomatic or asymptomatic COVID-19 disease;
- some institutions have been periodically designated "COVID Hospitals";
- access to surgeons, potential strategic partners, and facilities outside of the United States has become curtailed;
- administrators who may be required to facilitate or approve new product intake are constrained by new and other pressing priorities; and
- both clinicians and patients often try to minimize possible COVID-19 exposure, resulting in reduced access to healthcare system and essential care treatments and services.

We believe that these challenges have also highlighted some potential opportunities for our new technology to address certain poorly met needs. For instance, wound interventions are too often considered to be elective procedures instead of being treated essentially or emergently as National Pressure Ulcer Advisory Panel guidelines and others recommend, resulting in a projected increased risk to limb and life while elective procedures are delayed and not prioritized. Furthermore, the implications of these delays are a growing backlog of chronic wounds awaiting care and a worsening of such wounds, leading to greater morbidity, such as infection, necrosis, and amputation, and potentially mortality.

While highlighted by the COVID-19 pandemic, we also believe that these challenges reveal an underlying problem in the healthcare system-clinicians and other providers are being asked to accomplish more in less time with fewer resources. These resources may include higher acuity settings, such as operating rooms; expensive wound care products that may not work as well as desired; nursing time to change wound dressings; and surgeon time for managing wounds during debridement; repeat patient visits over months and often years, and others. Our COVID-19- related discussions with surgeons, economic stakeholders and other decision-making personnel often include whether AC5 Advanced Wound System may enable them to accomplish more for their patients while deploying overall fewer resources and achieving desired outcomes.

Manufacturing

We work with contract manufacturing and related organizations, including those operating under current good manufacturing practices ("**cGMP**"), as is required by applicable regulatory agencies for production of product that can be used for preclinical and human testing as well as for commercial use. We also have engaged and continue to engage other third parties in the United States and abroad to advise on and perform certain manufacturing and related activities, typically with assistance from our team. These third parties include academic institutions, consultants, advisors, scientists, and/or other collaborators. The activities include development of our primary product candidates, as well as generation of appropriate analytical methods, scale-up, and other procedures for use by manufacturers and/or other members of our supply chain to produce or process our products at current and/or larger scale quantities for preclinical and clinical testing and ultimately, as required marketing authorizations are obtained, commercialization.

Our products are regulated as medical devices, and as such, many of our activities have focused on optimizing traditional parameters to target specifications, biocompatibility, physical appearance, stability, and handling characteristics, among other metrics, to achieve the desired product. We and our partners intend to continue to monitor manufacturing processes and formulation methods closely, as success or failure in establishing and maintaining appropriate specifications may directly impact our ability to conduct additional preclinical and clinical trials and/or deliver commercial product.

We believe that the manufacturing methods used for a product, including the type and source of ingredients and the burden of waste byproduct elimination, are important determinants of its opportunity for profitability. Industry participants are keenly aware of the downsides of products that rely on expensive biotechnology techniques and facilities for manufacture, onerous and expensive programs to eliminate complex materials, or ingredients that are sourced from the complicated process of human or other animal plasma separation, since those products typically are expensive, burdensome to produce, and at greater risk for failing regulatory oversight.

The manufacturing methods that we use and intend to use to produce our current products and potential future product candidates rely on detailed, complex and difficult to manage synthetic organic chemistry processes. Although use of those methods requires that we engage manufacturers that possess the expertise, skill and know-how involved with those methods, the required equipment to use those methods is widely available. Furthermore, improvements in relevant synthetic manufacturing techniques over the past two decades have reduced their complexity and cost, while increasing large-scale cGMP capacity. Moreover, our current products and currently planned product candidates will be synthesized from naturally occurring ingredients that are not sourced from humans or other animals but do exist in their natural state in humans. That type of ingredient may be more likely to be categorized as "generally recognized as safe", or "GRAS", by the FDA.

Industry and Competition

Arch is developing technology for Dermal Sciences and BioSurgery applications, including wound care, surgical procedures on and in the body, and endoscopic gastrointestinal procedures. We seek to provide a product set with broad utility in external and internal applications. Features of the technology highlight its potential utility in a range of settings, including traditional open procedures and the often more challenging minimally invasive surgeries.

Common features of our current and planned products, as described herein, are driven by the mechanism of action, which itself is derived from the underlying physicochemical properties or our self-assembling peptide technology and our product safety and performance specifications. Those features, which include, among others, that they possess barrier properties and can create an environment permissive to healing, can deliver a benefit in the treatment of external and internal wounds that are open, exposed, bleeding, leaking, and/or at risk for excessive inflammation or contamination.

Dermal Sciences

We have received marketing authorizations for AC5 Advanced Wound System in the United States and AC5 Topical Hemostat in Europe. Compared to most other advanced wound dressings on the market, ours can be used throughout all phases of wound healing (i.e., inflammatory, proliferative, and remodeling).

Wounds can vary widely in terms of degree of bleeding and oozing, chronicity, acuity, complications, anatomic location, biochemistry, micromilieu, bioburden and other factors that may inhibit an ideal response. Patients can also vary widely in terms of co-morbidities, compliance, setting of their care, ability to contribute to their own care, and other risk factors. And the approach by surgeons to clinical practice can vary widely in terms of debridement strategy, timing and/or use of advanced modalities, choice and use of consumables, follow-up, and dressing change frequency, and more. Our products are designed to self-assemble on the wound site in response to locally present stimuli (ions), despite these diverse situations, with the objective of providing greater utility to clinicians and enabling better outcomes for patients.

The incidence and prevalence of both acute surgical and chronic wounds is noteworthy. According to a 2020 report by Steiner et al for The Healthcare Cost and Utilization Project, approximately 17 million hospital visits (inpatient and ambulatory) in 2014 resulted in almost 22 million invasive therapeutic surgeries. While more acute surgical wounds occur per year versus chronic wounds, the nature of chronic wounds provides addition greater challenges due to the prolonged duration of the healing period, the frequency of interventions needed to help the wound heal, and the often-underlying medical problem that placed the patient at risk for the wound in the first place, which is itself a hindrance to the healing process.

Chronic wounds affect approximately 2% of the United States Population, accounting for an estimated 6-7 million people.

Diabetic foot ulcers develop in approximately 2 million Americans each year, according to The Health Innovation Program, University of Wisconsin, while the annual incidence across developed countries is estimated to be 2-4%, according to Woods et al in 2020. Pressure ulcers develop in over 2.5 million Americans each year, according to the United States Agency for Healthcare Research & Quality.

Venous leg ulcers, representing the most common chronic wounds, occur in approximately 2.2% of Americans over age 65 each year, according to Rice et al in 2014, which equates to roughly 1.2 million new wounds per year among just that population, while Qiu et al in 2021 provided an estimated prevalence of 2-4%. The Centers for Disease Control and Prevention estimates that approximately 56 million Americans are over age 65. Additional chronic wounds not accounted for above can include, among others, surgical wounds that become chronic wounds, typically in patients with co-morbidities.

The morbidity and mortality associated with wounds, and particularly chronic wounds, is problematic. A 2017 article by Järbrink et al noted that chronic wounds may not heal for several years or, in some cases, decades, during which time the patient may suffer from severe pain, emotional and physical distress, less mobility and greater social isolation, while the family may suffer from other stresses and challenges. Woods et al in 2020 stated that only 2/3 of diabetic foot ulcers heal within 12 months. Some wounds just do not heal, remaining stagnant or progressing to limb loss or worse. Järbrink et al noted in 2017 that ulcers precede 85% of all amputations.

The Health Innovation Program, Universality of Washington, cited that of patients with diabetic foot ulcers in the United States, more than 50% will die within five years and 5% will have an amputation (https://hip.wisc.edu/DiabeticFootUlcers). A common phrase in medicine, which we often cite, is, “Save a limb, save a life.” Even the amputations that are required to save a patient from a non-healing, progressing chronic wound are associated with additional significant morbidity and mortality. In an examination of mortality rates after amputations from a chronic wound, Meshkin et al performed a systematic literature review and found that of the sixty-one studies yielding approximately 36,000 patients who previously received a nontraumatic major lower extremity amputation, approximately 34% died by year one, 55% died by year two, and 64% died by year five. Stern et al in 2017 reported an even higher mortality rate one year after amputation of approximately 48%.

According to the US Market Report for Wound and Tissue Management, 2018 by iData Research, advanced wound dressings account for approximately $2 billion in annual revenues while the overall wound care market is projected to surpass $10 billion in the United States, yet this represents a relatively small percentage of the overall cost to care for wounds, including chronic wounds, such as venous leg ulcers, diabetic foot ulcers, and pressure ulcers.

As such, the total expenditure required to treat wounds is an important consideration in assessing market opportunity, product need, industry dynamics, and needs of insurers. Several wound related phenomenon influence the overall cost and challenge of wound care. For instance, many surgeons believe that a chronic wound is essentially a chronic infection, which raises costs and complicates treatment plans, and that healing requires aggressive debridement (surgical removal of damaged, dead, lacerated, devitalized, or contaminated tissue), which narrows the scope of which wound care products can be used at the time of the procedure as a useful tool to support healing.

According to a 2018 report by Nussbaum et al., data from calendar year 2014 estimated that Medicare alone spent between $28.1 to $96.8 billion for all wound care types, and that nearly 15% (8.2 million) of Medicare beneficiaries were diagnosed with at least one type of wound or wound-related infection. Furthermore, a 2017 report by Chan et al indicated that the mean one-year cost of care from the perspective of a health-care public payer was $44,200 for a diabetic foot ulcer, $15,400 for a pressure ulcer and $11,000 for a leg ulcer. Woods et al in 2020 estimated that the cost per admission among patients with diabetic foot ulcers was $8,145 if the wound was not infected and $11,290 if the wound was infected. Han et al noted in 2017 that lessening a hospital admission by just one day represents an enormous cost savings and is separately beneficial to the patient.

A common wound care topic, which has been further highlighted during the COVID-19 pandemic, is how to provide high quality care in lower acuity settings. It is less expensive, more convenient, and potentially better for the patient if a wound care procedure, such as debridement, can be safely performed in a doctor's office or wound clinic in lieu of a hospital operating room. For example, a report by Rogers et al in 2020 discussed changing sites of service to the lowest acuity setting in which care could be safely delivered. As such, we believe that wound care products should be designed to enable clinicians to "do more with less", such as debride in a clinic or office a wound that otherwise may have required an operating room visit.

While the wound care opportunity is large for safe, efficacious, and novel products, the competitive landscape is also crowded and challenging. For instance, while many of the commercially marketed advanced wound care dressings or other products, may provide utility in certain situations and possess some novel features, surgeons often describe an inability to differentiate one from the other. In addition, many advanced products are expensive when accounting for wound surface area coverage, are not user friendly, and/or may need to rely on the passage of several weeks of time for the wound bed to adequately be prepared before they can be used, which itself adds burden to their use.

We believe that the aforementioned elevated wound incidence and prevalence, consequential morbidity and mortality, prolonged healing times and exorbitant cost of overall care underscores the potential opportunity for the overall market and for our products. We believe that the addressable market opportunity for advanced wound care products in the US alone can exceed $20 billion if improvements enable the best products to increase penetration at the expense of less effective wound care products and categories, lessen expensive non-product-related treatment costs for insurers (e.g., skin grafts, dressing changes, etc.), and deliver improved outcomes more quickly and in lower acuity settings.

We believe that AC5 Advanced Wound System® is sufficiently differentiated to replace certain competitive products, complement other products and procedures by potentially enabling the wound bed to be ready sooner, and enable more procedures to be done sooner and/or in settings where they could not be performed easily before.

Features and benefits of AC5 Advanced Wound System may include that it:

- is a self-assembling wound care matrix and may provide better outcomes across all phases of wound;
- conforms to irregularly shaped wound geometry;
- may be used in either lower acuity (e.g., clinics) or higher acuity (e.g., operating rooms) settings;
- can be used in conjunction with aggressive surgical debridement;
- can be used on a wound whether or not it is bleeding;
- is agnostic to the presence of anti-thrombotic therapy (aka, blood thinners);
- can be used on a chronic, stalled wound that has been previously unresponsive to or failed other treatment regimens;
- provides a protective barrier to mitigate contamination and modulating inflammation;
- donates moisture to the wound;
- can create wound microenvironment conducive to healing;
- aids in epithelial cell migration;
- creates an extracellular matrix-like structure to enable cell and tissue growth;
- is self-healing, in that it can dynamically self-repair around migrating cells;
- may reduce healing time and patient burden;
- is user-friendly, easy to prepare, and easy to apply;
- may be stored at ambient temperature; and
- may reduce treatment costs while improving outcomes in certain patients.

BioSurgery

We are developing BioSurgery products for internal use, including for hemostasis and sealant applications, and gastrointestinal endoscopic surgical procedures, and we believe that our technology will be useful in addressing the constant demand for better performance and safety in minimally invasive surgery ("**MIS**"), traditional surgery, Natural Orifice Translumenal Endoscopic Surgery, commonly referred to as "*NOTES'*, and other procedures.

While developing our products, we engaged commercial strategy and marketing consultants and communicated directly with care providers to understand the needs of potential customers and to assess product feature preferences.

Surgeons, operating room managers, sales representatives and hospital decision-makers identified several characteristics deemed desirable, including that a product is:

- reliable;
- able to protect the wounds in tissues and organs where used;
- laparoscopic friendly;
- easily handled and applied;
- able to promote a clear field of vision and not obstruct view;
- sufficiently flowable;
- non-sticky (to tissue or equipment);
- permits normal healing;
- agnostic to the presence of antithrombotic medications ("blood thinners") to whether the patient has bleeding abnormalities;
- non-toxic; and
- not sourced from human or other animal blood or tissue components.

We believe that long-term trends, which support a need for products to better support clinicians in surgical procedures, include:

- a persistent drive to migrate the site of surgical care from inpatient hospital operating room to progressively lower acuity same-day ambulatory settings due to cost and other potential negative impacts of unnecessary hospitalizations, such as infection risk or occupying scares resources that may be more usefully deployed elsewhere;
- increased use of anticoagulants and other anti-thrombotic agents (also known as blood thinners) due to co-morbidities, but which predispose patients to bleeding;
- the increasingly difficult nature of procedures expected to be performed by surgeons with the least invasive method feasible in the less expensive settings accessible; and
- the desire to lower procedure time to increase operating room through-put, increase shift volume, and lessen in-procedure time for patient's well-being;

We believe that a motivating factor for some of these trends may be the increased costs associated with procedures performed in hospital operating rooms, which have been estimated to cost between $2,000 and $10,000 per hour, according to MedMarket Diligence and others.

These costs likely drive the desire for increased operating room throughput and increased volume of procedures performed in outpatient settings. Both of those trends highlight the need for highly effective products that can decrease operating room time for inpatient procedures and help to increase the safety of performing more types of procedures in less expensive outpatient settings.

Since the early days of modern MIS in the 1990s, the percent of surgeries performed minimally invasively has increased significantly, such that it is now widespread and common. Laparoscopic surgery is among the most recognized types of MIS, although there are many additional types. Advantages of MIS tend to include less scarring, less post-operative pain, less need for pain medications, shorter recovery times, and faster discharge times. However, such procedures often present the surgeon with less margin for error and less capacity to deal with certain risks, such as excessive bleeding, without having to convert the surgery to a traditional open procedure.

A trend to make traditional minimally invasive surgery even less invasive is known NOTES. In NOTES procedures, an endoscope is passed through a natural orifice, such as the mouth, urethra, anus, or vagina, and then through an internal incision in the stomach, vagina, bladder or colon. NOTES advantages include those of MIS to a potentially even greater degree, as well as the lack of external incisions and external scars, improved visibility, and the possibility to avoid managing potential obstacles to surgery, such as extensive adhesions from prior procedures. However, compared to MIS, margin for error in NOTES is even less. NOTES may be performed by surgeons or endoscopists, yet the techniques can be challenging to learn and are in their early stages of development. Practitioners may seek additional tools, including BioSurgery products where relevant, to enable them to operate efficiently, effectively, and safely.

We consider these items while developing our BioSurgery products with the objective of meeting these needs.

We are developing products for hemostasis and sealant applications. Many of the hemostasis products currently available do not possess certain features and handling characteristics that are ideal for use in a laparoscopic setting. For instance, many available products are difficult to use in MIS or NOTES because they tend to be sticky, powdery, fabric-based or are otherwise difficult to insert into and control through the small gauge, yet long, catheters used during these procedures. We believe that the novel features and differentiating characteristics of our BioSurgery products will make them more suitable for such surgeries compared to many or most of the presently available alternatives.

According to a 2015 MedMarket Diligence, LLC report, the market for hemostatic agents and sealants achieved approximately $4.2 billion in worldwide sales in 2015 and was projected to reach $4.8 billion in 2017 and surpass $7.5 billion in 2022. While the majority of those sales are for hemostats, we believe that the projected growth rate for sealants in multiple applications, such as the gastrointestinal track, could become greater as additional products become available.

In spite of the large size of the market for these products, many available hemostatic agents and sealants possess a combination of limitations, including slow onset of action, general unreliability, user-unfriendliness, and risk for adverse effects, such as healing problems, adhesion formation, infection and other safety concerns. Many of the deficiencies of currently available hemostatic agents and sealants are comparable to those of their earlier-generation counterparts, as revolutionary advances in underlying technologies have been elusive.

Participants in the hemostatic and sealant market include large medical device and biopharmaceutical companies, as well as various smaller companies. Commercially available hemostatic agents can cost between $50 and $500 per procedure, with the higher value-added products generally priced at the upper end of that range. We believe, however, that approaches to many surgical problems have evolved and will continue to do so, such that what may recently appeared to be an interesting market may be less so in the future if the required tools also evolve. For instance, the endovascular approach to vascular reconstruction may lessen the need for hemostatic agents in certain procedures.

We are also developing products for gastrointestinal and NOTES procedures, endoscopic mucosal resections ("**EMR**") and endoscopic submucosal dissections ("**ESD**"). Surgical endoscopists are removing more complicated tumors and lesions from the gastrointestinal tract via EMR and ESD, which are endoscopic techniques to remove early-stage cancer and precancerous growths from the lining of the digestive tract through long narrow equipment, which consist of ports, catheters, lights, monitors, and video cameras. This represents the least invasive interventional approach known.

The EMR/ESD market is immature and growing, we believe, because of an increasing elderly population and incidence of gastrointestinal malignancies. The opportunity is noteworthy in North America, Europe, and Asia, where a higher prevalence of certain gastrointestinal malignancies and lower screening rates leads to later discovery and removal of tumors than would be desired. We believe that overall costs of care associated with these procedures, when compared to that of more invasive alternatives, and potentially faster recovery times will encourage a growth trend. It should be noted that these procedures do require that the doctor possess additional non-routine skill and equipment thereby tempering potential adoption curves.

A particular need for which we are developing AC5-G is a product that provides both a durable and safe lift while being inherently hemostatic. The concept is to inject AC5-G beneath a polyp or tumor to be resected or dissected, thus creating separation between the lesion and the underlying healthy tissue.

Incomplete lesion removal, bleeding and perforation are known challenges and risks of EMR/ESD. The objective of a lift is to minimize the risk for perforation into the peritoneum, which can cause significant morbidity and mortality, and increase the probability of visualizing and removing the entire desired lesion. The lift should also be durable, potentially lasting at least two hours, such that the frequency of repeat injections and perforation risk is minimized. Normal and abnormal tissues can also bleed during these procedures, and it can be challenging and time consuming to stop. Surgeons have expressed a desire for an improved agent that can prophylactically or actively address such bleeding. Surgeons have further expressed interest in sealant properties in the event that a perforation occurs during the procedure.

Several companies have products that provide either a lift or are hemostatic. Based on early indicators, we believe that AC5-G provides properties for both lift and hemostasis. AC5-G was featured in a video presentation during the Emerging Technology Session of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) 2020 Annual Meeting, which took place from August 11-13, 2020.

Potential Disadvantages of our Current and Planned Products Compared to the Competition

Some potential disadvantages of our products compared to currently marketed products follow:

- The favorable handling characteristics of AC5 Devices result, in part, from their non-sticky and non-glue-like nature. However, if a surgeon or healthcare provider requires a product to adhere tissues together, or provide similar glue-like action, then AC5 Devices in their current form would not achieve that effect.
- While we project that our products will be sufficiently economical to manufacture at scale, they may not be able to compete from a price perspective with inexpensive products.
- We have generated less data in humans compared to many successful products in the Dermal Sciences or BioSurgery categories.
- While we believe that the flowable nature of our products before they assemble into a dense nanofiber network can provide a meaningful advantage, some surgeons may prefer a solid product in certain applications.

Other Governmental Regulations and Environmental Matters

We are or may become subject to various laws and regulations regarding laboratory practices and the use of animals in testing, as well as environmental laws and regulations governing, among other things, any use and disposal by us of hazardous or potentially hazardous substances in connection with our research. At this time, costs attributable to environmental compliance are not material. In each of these areas, applicable U.S. and foreign government agencies have broad regulatory and enforcement powers, including, among other things, the ability to levy fines and civil penalties, suspend or delay issuance of approvals, seize or recall products, and withdraw approvals, any one or more of which could have a material adverse effect on our business. Additionally, if we are able to successfully obtain approvals for, and commercialize our product candidates, then the Company and our products may become subject to various federal, state and local laws targeting fraud, abuse, privacy and security in the healthcare industry.

Intellectual Property

We are focused on the development of self-assembling compositions, particularly self-assembling peptide compositions, and methods of making and using such compositions primarily in healthcare applications. Suitable applications of these compositions include limiting or preventing the movement of bodily fluids and contaminants within or on the human body, preventing adhesions, treatment of leaky or damaged tight junctions, and reinforcement of weak or damaged vessels, such as aneurysms. Our strategy to date has been to develop an intellectual property portfolio in high-value jurisdictions that tend to uphold intellectual property rights and apply business judgment rules to determine which patent applications to pursue and, if granted, which patents to maintain. The information provided is subject to change if pending patent applications are abandoned, issued patents are allowed to lapse, or new applications are filed.

As of October 25, 2023, we either own or license from others a number of U.S. patents, U.S. patent applications, foreign patents and foreign patent applications.

Six patent portfolios assigned to Arch Biosurgery, Inc. include approximately 50 patents and pending applications in approximately 20 jurisdictions, including approximately 11 patents and pending applications in the US. These portfolios cover self-assembling peptides, formulations and methods of use thereof and self-assembling peptidomimetics and methods of use thereof, including approximately eight issued US patents (US 9,415,084; US 9,162,005; US 9,789,157; US 9,821,022; US 9,339,476; US 10,314,886; US 10,682,386, and 10,869,907) that expire between 2026 and 2034 (absent any potential patent term extension), as well as approximately 30 patents that have been either allowed, issued or granted in foreign jurisdictions.

We have also entered into a license agreement with Massachusetts Institute of Technology and Versitech Limited ("**MIT**") pursuant to which we have been granted exclusive rights under two portfolios of patents and non-exclusive rights under another three portfolios of patents.

The two portfolios exclusively licensed from MIT include approximately 30 patents and pending applications drawn to self-assembling peptides, formulations and methods of use thereof and self-assembling peptidomimetics and methods of use thereof in a total of nine jurisdictions. The portfolios include five issued US patents (US 9,511,113; US 9,084,837; US 10,137,166; US 9,327,010; and US 9,364,513) that expire between 2026 and 2027 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

The portfolios non-exclusively licensed from MIT include a number of US and foreign applications, including three issued US patents (US 7,846,891; US 7,713,923; and US 8,901,084) that expire between 2024 and 2026 (absent any potential patent term extension), as well as additional patents that have been either allowed, issued or granted in foreign jurisdictions.

Our license agreement with MIT imposes or imposed certain diligence, capital raising, and other obligations on us, including obligations to raise certain amounts of capital by specific dates. Additionally, we are responsible for all patent prosecution and maintenance fees under that agreement. Our breach of any material terms of our license agreement with MIT could permit the counterparty to terminate the agreement, which could result in our loss of some or all of our rights to use certain intellectual property that is material to our business and our lead product candidate. Our loss of any of the rights granted to us under our license agreement with MIT could materially harm our product development efforts and could cause our business to fail.

AC5, AC5-G, AC5-V, AC5-P, Crystal Clear Surgery, NanoDrape and NanoBioBarrier and associated logos are trademarks and/or registered trademarks of Arch Therapeutics, Inc. and of Arch Biosurgery, Inc.

Employees

As of October 25, 2023, we had ten employees, all of whom are full-time, and make extensive use of third-party contractors, consultants, and advisors to perform many of our present activities. We expect to increase the number of our employees as we increase our operations.

Properties

We do not own any real property. In April 2015, we moved our corporate offices to a property in Framingham, Massachusetts. In July 2017, we entered into a three-year operating lease commencing October 1, 2017 and ending on September 30, 2020 at our current location. During August 2020, we extended the lease through September 30, 2021 at our current location. During October 2021, we extended the lease through March 31, 2022 at our current location. Effective April 1, 2022, our lease is month to month at our current location.

Legal Proceedings

In the ordinary course of business, we may become a party to legal proceedings involving various matters. We are unaware of any such legal proceedings presently pending to which we or our subsidiary is a party or of which any of our property is the subject that management deems to be, individually or in the aggregate, material to our financial condition or results of operations.

Dr. Avtar Dhillon served as our Chairman of the Board from April 2013 through July 2018, and as an advisor to us from July 2018 until his termination on August 6, 2021. As previously disclosed, in August 2021, the U.S. Department of Justice (the "**DOJ**") filed a criminal complaint against Dr. Avtar Dhillon, alleging, among other things, his participation in a securities fraud scheme whereby he concealed his ownership of millions of shares of two microcap companies (including the Company) and then secretly directed the shares' sale, generating approximately $2.19 million in proceeds. On December 7, 2022, Dr. Avtar Dhillon pleaded guilty to one count of conspiracy to commit securities fraud, one count of securities fraud, and two counts of obstructing a proceeding of the SEC. Sentencing is scheduled for May 23, 2024. At the same time, the SEC charged Dr. Avtar Dhillon with violations of the antifraud and certain other provisions of federal securities laws in connection with the sales of securities of certain public companies, including his sale of shares of the Company. On October 20, 2022, the United States District Court for the Central District of California entered a final judgment as to Dr. Avtar Dhillon, in favor of the SEC, pursuant to which he is (1) prohibited from acting as an officer or director of any issuer that has a class of securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") or that is required to file reports pursuant to Section 15(d) of the Exchange Act and (2) permanently restrained and enjoined from violating, directly or indirectly, (i) Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder, (ii) Section 17(a) of the Securities Act, and (iii) Section 17(b) of the Securities Act. The Company has fully cooperated with the DOJ and the SEC and has not been implicated in or charged with any wrongdoing.

DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Set forth below is certain information regarding our current directors and executive officers:

Name	Position	Age	Director/Officer Since
Dr. Terrence W. Norchi	President, Chief Executive Officer and Chairman of the Board of Directors	58	April 2013
Michael S. Abrams	Chief Financial Officer	52	May 2021
Daniel M. Yrigoyen	Vice President of Sales	53	July 2021
Punit Dhillon	Director	42	July 2018
Laurence Hicks	Director	57	September 2021
Dr. Guy L. Fish	Director	63	December 2021

Dr. Terrence W. Norchi. Terrence W. Norchi, MD, our co-founder, serves as our President and Chief Executive Officer, and Chairman of the Board. Dr. Norchi also served as our Interim Chief Financial Officer through June 26, 2013. Dr. Norchi has served in similar positions since co-founding ABS, our predecessor company in 2006. Prior to ABS, Dr. Norchi was a portfolio manager of one of the world's largest healthcare mutual funds and a pharmaceutical analyst at Putnam Investments from April 2002 to September 2004. Prior to that, he served as the senior global biotech and international pharmaceutical equity analyst at Citigroup Asset Management, and as a sell-side analyst covering non-U.S. pharmaceutical equities at Sanford C. Bernstein in New York City. Dr. Norchi earned an M.B.A. from the Massachusetts Institute of Technology, Sloan School of Management in 1996. Dr. Norchi earned an M.D. degree in 1990 from Northeast Ohio Medical University and completed his internal medicine residency in 1994 at Baystate Medical Center, Tufts University School of Medicine, where he was selected to serve as the Chief Medical Resident. Dr. Norchi brings to our Board and management team invaluable experience and knowledge of our core technology and proposed product candidates as a result of his first-hand experience with the development of that technology, having ushered it from the research laboratory to its current stage of development. His investing experience as a former public company analyst and a portfolio manager provides further insights and value as the company advances toward commercialization. Dr. Norchi serves on the Board of Advisors of the Boston Museum of Science.

Michael S. Abrams. Mr. Abrams has served as the Chief Financial Officer of the Company since May 2021. Prior to joining the Company, Mr. Abrams was the turnaround Chief Financial Officer for RiseIT Solutions, Inc. from February 2019 to April 2021, where he helped return the business to profitability. Prior to RiseIT Solutions, from August 2009 to February 2019, Mr. Abrams served as the Chief Financial Officer and director of FitLife Brands, Inc., a publicly traded entity focused on the development of functional nutritional supplements that promote an active, healthy lifestyle. From August 2004 to December 2016, Mr. Abrams served as Partner and Managing Director of Burnham Hill Capital Group, a private privately held financial services holding company. Mr. Abrams graduated with an MBA with Honors from the Booth School of Business at the University of Chicago and received his BBA with Honors from the University of Massachusetts at Amherst as a William F. Field Alumni scholar, an award given annually to the top finance student in the class.

Daniel M. Yrigoyen. Mr. Yrigoyen has served as the Vice President of Sales of the Company since July 2021. Prior to joining the Company, Mr. Yrigoyen was Vice President, Sales & Channel Distribution for Medela, Inc. from April 2016 to July 2021. Prior to Medela, Mr. Yrigoyen served as General Manager for multiple business units at Hollister, Inc., where he was responsible for the expansion of the wound care product portfolio and led the effort to launch several new and innovative wound care products into the US market. Following these efforts, Mr. Yrigoyen joined the Hollister Global Marketing Organization, where he led similar expansion efforts within key markets of Hollister's international business. Mr. Yrigoyen was an employee at Hollister for over 20 years and brings significant healthcare and distribution experience to the Company. Yrigoyen graduated with an MBA from the Kellogg School of Management at Northwestern University.

Punit Dhillon. Mr. Dhillon joined our Board of Directors in July 2018. Mr. Dhillon was appointed CEO and Chair of Skye Bioscience, Inc. (OTCQB: SKYE) in August 2020 and brings over 20 years of global industry experience to Arch's Board. He is the co-founder and former President & CEO of OncoSec Medical Incorporated (NASDAQ: ONCS), a leading biopharmaceutical company developing cancer immunotherapies for the treatment of solid tumors, where he served as an executive until March 2018 and a director until February 2020. Prior to that, Mr. Dhillon served as the Vice President of Finance and Operations at Inovio Pharmaceuticals, Inc. (NASDAQ: INO), a DNA vaccine development company, from September 2003 until March 2011. Mr. Dhillon is also a director and Audit Committee Chair of Emerald Health Therapeutics, Inc. (CSE: EMH). Mr. Dhillon also co-founded and is the director of YELL Canada, a registered Canadian charity that partners with schools to support entrepreneurial learning. Mr. Dhillon has a Bachelor of Arts with honors in Political Science and a minor in Business Administration from Simon Fraser University. Mr. Dhillon's experience in the medical device and life sciences industry provides value to his role as a member of the Board.

Laurence Hicks. Mr. Hicks joined our Board of Directors in September 2021. He has been the chief executive officer of Healthcare Components Group, a global manufacturer of OEM and replacement parts used for the manufacture and repair of medical devices, since 2021. From 2016 until 2021, when it merged into Healthcare Components Group, Mr. Hicks was chief executive officer of 2506052 Ontario Inc., a holding company for American Optics, Endoscopy Replacement Parts and Micro Optics Europe, which sell components used in the manufacturing and repair of endoscopes worldwide. He has held medical device leadership roles at ACMI, Karl Storz Endoscopy and NeuroTherm. Mr. Hicks' experience in the medical device industry provides value to his role as a member of the Board.

Dr. Guy L. Fish. Dr. Fish joined our Board of Directors in December 2021. He is currently employed by the Greater Lawrence Family Health Centers, a nationally recognized Federally Qualified Health Center, where he has served as the Chief Executive Officer since 2021. Dr. Fish is also the President and Co-Founder of Ivy Consulting Partners, Inc., a boutique consultancy focused on healthcare, corporate and leadership development, and business strategy, a role he has held since 1999. Dr. Fish served as the Chief Executive Officer at Cellanyx LLC, a cancer diagnostic company, from 2019 to 2020. From 2002 to 2021, Dr. Fish served in various executive positions at Fletcher Spaght, Inc., a strategy management firm focused on health care innovator companies. From 2006 to 2019, Dr. Fish served as an investor and Senior Vice President at Fletcher Spaght Ventures. Dr. Fish has served as a member of the board of directors of Etiometry, Inc. since 2019, PhaseBio Pharmaceuticals, Inc. (NASDAQ:PHAS) from 2009 to 2018, and Metabolon, Inc. from 2010 to 2017. Dr. Fish holds an MBA degree from Yale University School of Management and a M.D. degree from Yale University School of Medicine. Dr. Fish holds a bachelor's degree in biochemistry from Harvard University. The Company believes that Dr. Fish is qualified to serve on the Board as a result of his extensive leadership experience in the medical field, as well as his record of accomplishment in business strategy and operations.

Board of Director Composition

Our Board currently consists of four members. We have no formal policy regarding board diversity. Our priority in selection of board members is identification of members who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business and understanding of the competitive landscape.

Term of Office of Directors

Our directors are appointed and serve until their successor has been duly elected and qualified, or until the earlier of their death, resignation or removal.

Involvement in Certain Legal Proceedings

No director, executive officer or control person of the Company has been involved in any legal proceeding listed in Item 401(f) of Regulation S-K in the past 10 years.

Director Independence

Our Board of Directors has determined that Mr. Punit Dhillon, Mr. Laurence Hicks and Dr. Guy Fish would qualify as "independent" as that term is defined by Nasdaq Listing Rule 5605(a)(2). On August 15, 2022, we have established separately designated audit, corporate governance and nominating, and compensation board committees. Mr. Dhillon, Mr. Hicks, and Dr. Fish all qualify as "independent" under Nasdaq Listing Rules applicable to all such board committees. Dr. Terrence W. Norchi would not qualify as "independent" under Nasdaq Listing Rules applicable to the Board of Directors generally or to separately designated board committees because he currently serves as our President and Chief Executive Officer.

Subject to some exceptions, Nasdaq Listing Rule 5605(a)(2) provides that an independent director is a person other than an executive officer or other employee of the Company or any other individual having a relationship which, in the opinion of our Board of Directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Under Nasdaq Listing Rule 5605(a)(2) and subject to certain exceptions, a director will not be deemed to be independent if (a) the director is, or at any time during the past three years was, an employee of ours; (b) the director or a member of the director's immediate family or a person living with such director (collectively, a "**Related Party**") has received more than $120,000 in compensation from us during any twelve-month period within the preceding three years, other than compensation for service as a director or as a non-executive employee (in the case of Related Party), benefits under a tax-qualified retirement plan or non-discretionary compensation; (c) a Related Party is, or in the past three years has been, an executive officer of ours; (d) the director or a Related Party is an executive officer, partner or controlling shareholder of a company that makes payments to, or receives payments from, us in an amount which, in any twelve-month period during our past three fiscal years, exceeds the greater of 5% of the recipient's consolidated gross revenues for that year or $200,000 (except for payments arising solely from investments in our securities or payments under non-discretionary charitable contribution matching programs); (e) the director or a Related Party is employed as an executive officer of another company where at any time during the preceding three years one of our executive officers served on the compensation committee of such company; and (f) the director or a Related Party is a current partner of our independent public accounting firm, or has worked for such firm in any capacity on our audit at any time during the past three years.

Committees of the Board of Directors

Our Board has established an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. Our Board may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our Board. Each of these committees operate under a charter that has been approved by our Board, which will be available on our website.

Audit Committee

On August 15, 2022, our Board of Directors established a separate standing audit committee within the meaning of Section 3(a)(58)(A) of the Exchange Act. The Audit Committee consists of Mr. Punit Dhillon, serving as the Chairman of the Audit Committee, Mr. Laurence Hicks, and Dr. Guy Fish. Our Board has determined that the three directors currently serving on our Audit Committee are independent within the meaning of the Nasdaq Marketplace Rules and Rule 10A-3 under the Exchange Act. Our Board of Directors has determined that Mr. Dhillon is an "audit committee financial expert" as defined by applicable Securities and Exchange Commission ("**SEC**") rules.

The Audit Committee oversees and monitors our financial reporting process and internal control system, reviews and evaluates the audit performed by our registered independent public accountants and reports to our Board any substantive issues found during the audit. The Audit Committee is directly responsible for the appointment, compensation and oversight of the work of our registered independent public accountants. The Audit Committee reviews and approves all transactions with affiliated parties.

Compensation Committee

Our Compensation Committee consists of Dr. Fish, Mr. Hicks and Mr. Dhillon, with Mr. Hicks serving as the Chairman of the Compensation Committee. Our Board has determined that the three directors currently serving on our Compensation Committee are independent under the listing standards, are "non-employee directors" as defined in rule 16b-3 promulgated under the Exchange Act and are "outside directors" as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended.

The Compensation Committee provides advice and makes recommendations to the Board in the areas of employee salaries, benefit programs and director compensation. The Compensation Committee also reviews and approves corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other officers and makes recommendations in that regard to the Board as a whole.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Dr. Fish, Mr. Hicks and Mr. Dhillon, with Dr. Fish serving as the Chairman of the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee nominates individuals to be elected to the Board by our stockholders. The Nominating and Corporate Governance Committee considers recommendations from stockholders if submitted in a timely manner in accordance with the procedures set forth in our bylaws and will apply the same criteria to all persons being considered. All members of the Nominating and Corporate Governance Committee are independent directors as defined under the Nasdaq listing standards.

Board Leadership Structure and Role in Risk Oversight

Currently, Dr. Norchi serves as the Company's Chief Executive Officer and Chairman of the Board. Periodically, our Board will assess the roles of Chairman and Chief Executive Officer and the Board leadership structure to ensure the interests of the Company and our stockholders are best served. Our Board believes the current combination of the two roles is satisfactory at present. Dr. Norchi, as our Chief Executive Officer and Chairman, has extensive knowledge of all aspects of the Company and its business. We have no policy requiring the combination or separation of leadership roles and our governing documents do not mandate a particular structure. This has allowed, and will continue to allow, our Board the flexibility to establish the most appropriate structure for the Company at any given time.

While management is responsible for assessing and managing risks for the Company, our Board is responsible for overseeing management's efforts to assess and manage risk. This oversight is conducted primarily by our full Board, which has responsibility for general oversight of risks. Our Board satisfies this responsibility through regular reports directly from officers responsible for oversight of particular risks within the Company. Our Board believes that full and open communication between management and the Board is essential for effective risk management and oversight.

Code of Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, principal executive officer, principal financial officer, principal accounting officer and all of our other officers and employees and can be found on our website, http://www.archtherapeutics.com on our "Corporate Governance" webpage, which can be accessed from the "Investors" tab of our website. We will also provide a copy of our code of business conduct and ethics to any person without charge upon his or her request. Any such request should be directed to our Chief Financial Officer at 235 Walnut Street, Suite 6, Framingham, Massachusetts 01702. We intend to make all required disclosures concerning any amendments to or waivers from our code of business conduct and ethics on our website.

Liability and Indemnification of Directors and Officers

The NRS empower us to indemnify our directors and officers against expenses relating to certain actions, suits or proceedings as provided for therein. In order for such indemnification to be available, the applicable director or officer must not have acted in a manner that constituted a breach of his or her fiduciary duties and involved intentional misconduct, fraud or a knowing violation of law, or must have acted in good faith and reasonably believed that his or her conduct was in, or not opposed to, our best interests. In the event of a criminal action, the applicable director or officer must not have had reasonable cause to believe his or her conduct was unlawful.

We have not entered into separate indemnification agreements with our directors and officers. Our amended and restated bylaws provide that we shall indemnify any director or officer to the fullest extent authorized by the laws of the State of Nevada. Our amended and restated bylaws further provide that we shall pay the expenses incurred by an officer or director (acting in his capacity as such) in defending any action, suit or proceeding in advance of the final disposition of such action, suit or proceeding, subject to the delivery to us by or on behalf of such director or officer of an undertaking to repay the amount of such expenses if it shall ultimately be determined that he or she is not entitled to be indemnified by us as authorized in our bylaws or otherwise.

The NRS further provide that a corporation may purchase and maintain insurance or make other financial arrangements on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise for any liability asserted against him and liability and expenses incurred by him in his capacity as a director, officer, employee or agent, or arising out of his status as such, whether or not the corporation has the authority to indemnify him against such liability and expenses. We have secured a directors' and officers' liability insurance policy. We expect that we will continue to maintain such a policy.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXECUTIVE COMPENSATION

The following table summarizes all compensation recorded by us in each of the fiscal years ended September 30, 2023, and September 30, 2022 for (i) our principal executive officer; (ii) our two next most highly compensated executive officers whose total compensation exceeded $100,000 during our last completed fiscal year; and (iii) certain of our other executive officers, whose compensation is voluntarily provided.

Summary Compensation Table

Name	Fiscal Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)(1)	All other Compensation ($)	Total ($)
Dr. Terrence W. Norchi,	2023	450,500	-	-	40,500	-	491,000
President and Chief Executive Officer	2022	450,500	-	-	-	-	450,500
Michael S. Abrams	2023	325,000	-	-	29,160	-	354,160
Chief Financial Officer	2022	325,000	-	-	-	-	325,000
Daniel Yrigoyen	2023	325,000	-	-	16,200	-	341,200
VP of Sales	2022	316,667	-	-	9,075	-	325,742

(1) Represents the aggregate grant date fair values of awards granted during the fiscal year ended September 30, 2023 and 2022 under ASC Topic 718, which is calculated as of the grant date using a Black-Scholes option-pricing model. Accordingly, the dollar amounts listed do not necessarily reflect the dollar amount of compensation that may be realized by our executive officers. For information on the valuation assumptions with respect to option grants made during the fiscal year ended September 30, 2022 refer to Note 14 "**Stock-Based Compensation**" in our consolidated financial statements in this prospectus.

Employment Agreements with Named Executive Officers

Terrence W. Norchi

On June 25, 2013, we entered into an executive employment agreement with Dr. Terrence W. Norchi, our President and Chief Executive Officer and a member of our Board, which became effective as of June 26, 2013. Dr. Norchi's employment agreement continues until terminated by Dr. Norchi, or us and provided for an initial annual base salary of $275,000, and eligibility to receive an annual cash bonus in an amount up to 30% of Dr. Norchi's then-current annual base salary. In addition, Dr. Norchi's employment agreement provides that his annual base salary will be reviewed from time to time in accordance with the established procedures of the Company for adjusting salaries for similarly situated employees. Annual bonuses are awarded at the sole discretion of our Board. If Dr. Norchi's employment is terminated by us (unless such termination is "For Cause" (as defined in his employment agreement)), or by Dr. Norchi for "Good Reason" (as defined in his employment agreement), then Dr. Norchi, upon signing a release in favor of the Company, will be entitled to severance in an amount equal to 12 months of Dr. Norchi's then-current annual base salary, payable in the form of salary continuation, plus, if Dr. Norchi elects and subject to certain other conditions, payment of Dr. Norchi's premiums to continue his group health coverage under COBRA until the earlier of (i) 12 months following the date of such termination; or (ii) the date Dr. Norchi becomes covered under another employer's health plan. In addition, Dr. Norchi's employment agreement provides that, in the event of a change of control of the Company, termination by Dr. Norchi for Good Reason, termination by the Company for any reason other than For Cause, or termination as a result of Dr. Norchi's death, all unvested shares under outstanding equity grants to Dr. Norchi, if any, shall automatically accelerate and become fully vested. On March 13, 2014, Dr. Norchi's employment agreement was amended to increase his annual base salary to $325,000, retroactively effective as of February 1, 2014, and increase his cash bonus eligibility from 30% of his annual base salary to 35% of his annual base salary. In connection with the Board's annual review of Dr. Norchi's base salary, Dr. Norchi's annual base salary was increased to $425,000 effective July 1, 2017. In connection with the Board's annual review of Dr. Norchi's base salary, Dr. Norchi's annual base salary was increased to $450,500 effective August 1, 2019.

Dr. Norchi's employment agreement provides the following definitions of "For Cause" and "Good Reason": (a) "For Cause" is (i) the commission by the executive of a crime involving dishonesty, breach of trust, or physical harm to any person, (ii) executive's engagement by the executive in conduct that is in bad faith and materially injurious to the Company, (iii) commission by the executive of a material breach of the employment agreement which is not cured within 20 days after the executive receives written notice of such breach, (iv) willful refusal by the executive to implement or follow a lawful policy or directive of the Company, which breach is not cured by the executive within 20 days after receiving written notice from the Company, (v) or executive's engagement in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally (other than any such failure resulting from Executive's incapacity due to physical or mental illness); and (b) "Good Reason" is, without the executive's written consent, (1) a material reduction in executive's annual base salary, except for reductions that are comparable to reductions generally applicable to similarly situated executives of the Company, (2) the relocation of executive to a facility or location that is more than 50 miles from his primary place of employment and such relocation results in an increase in executive's one-way driving distance by more than 50 miles, or (3) a material and adverse change in executive's authority, duties, or responsibilities with the Company or a material and adverse change in executive's reporting relationship within the Company.

In connection with our entry into the executive employment agreement with Dr. Norchi, effective on June 26, 2013, Dr. Norchi's former employment agreement with ABS was terminated pursuant to a termination agreement and release between Dr. Norchi and ABS.

Michael S. Abrams

On March 31, 2021, we entered into an executive employment agreement with Mr. Abrams, our Chief Financial Officer and Treasurer. The agreement continues until terminated by us or by Mr. Abrams. Pursuant to the terms of the agreement, Mr. Abrams is entitled to an initial annual base salary of $325,000 and is eligible to receive an annual cash bonus in an amount of up to 30% of Mr. Abrams' then-current annual base salary. Annual bonuses are awarded at the sole discretion of our Board of Directors. In addition, Mr. Abrams' employment agreement provides that his annual base salary will be reviewed by the Board (or any committee thereof), with such input as it may request from the Company's Chief Executive Officer, from time to time but at least on an annual basis, in accordance with the established procedures of the Company for adjusting salaries for similarly situated employees. If Mr. Abrams' employment is terminated by us at any time after 30 days after the start date (unless such termination is "For Cause" (as defined in his employment agreement)), or by Mr. Abrams for "Good Reason" (as defined in his employment agreement), then Mr. Abrams, upon signing a release in favor of the Company, would be entitled to severance in an amount equal to six months of Mr. Abrams' then-current annual base salary, payable in the form of salary continuation, plus, if Mr. Abrams elects and subject to certain other conditions, payment of Mr. Abrams' premiums to continue his group health coverage under COBRA until the earlier of (i) 12 months following the date of such termination; or (ii) the date Mr. Abrams becomes covered under another employer's health plan. In addition, Mr. Abrams' employment agreement provides that, in the event of a change of control of the Company or his employment is terminated by the Company for any reason other than For Cause, all unvested shares under outstanding equity grants to Mr. Abrams, if any, shall automatically accelerate and become fully vested.

The agreement provides the following definitions of "For Cause" and "Good Reason": (a) "For Cause" is (i) Mr. Abrams commits a crime involving dishonesty, breach of trust, or physical harm to any person; (ii) Mr. Abrams willfully engages in conduct that is in bad faith and materially injurious to the Company, including without limitation misappropriation of trade secrets, fraud or embezzlement; (iii) Mr. Abrams commits a material breach of this Agreement or the Proprietary Information Agreement, which breach is not cured within twenty calendar days after written notice to Executive from the Company (to the extent curable); (iv) Mr. Abrams willfully refuses to implement or follow a lawful policy or directive of the Company, which breach is not cured within twenty calendar days after written notice to Executive from the Company; or (v) Mr. Abrams engages in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally. The Company may terminate Mr. Abrams' employment For Cause at any time, without any advance notice. The Company shall pay Mr. Abrams all compensation to which Mr. Abrams is entitled up through the date of termination, subject to any other rights or remedies of the Company under law, and thereafter all obligations of the Company under this Agreement shall cease.

Daniel M. Yrigoyen

On July 12, 2021, we entered into an executive employment agreement with Mr. Yrigoyen, our Vice President of Sales. The agreement continues until terminated by us or by Mr. Yrigoyen. Pursuant to the terms of the agreement, Mr. Yrigoyen is entitled to an initial annual base salary of $225,000 and is eligible to receive regular commission payments of up to $8,333.33 per month, depending on the achievement of established objectives; *provided, however*, that for the first nine (9) months of employment, Mr. Yrigoyen shall be entitled to receive the full commission of $8,333.33 per month regardless of whether the applicable performance objectives are met; this provision was subsequently extended indefinitely pending review from time to time in connection with the Company's ongoing commercialization effort.

In addition, Mr. Yrigoyen's employment agreement provides that his annual base salary will be reviewed by the Board (or any committee thereof), with such input as it may request from the Company's Chief Executive Officer, from time to time but at least on an annual basis, in accordance with the established procedures of the Company for adjusting salaries for similarly situated employees. If Mr. Yrigoyen's employment is terminated by us at any time after 30 days after the start date (unless such termination is "For Cause" (as defined in his employment agreement)), or by Mr. Yrigoyen for "Good Reason" (as defined in his employment agreement), then Mr. Yrigoyen, upon signing a release in favor of the Company, would be entitled to severance in an amount equal to six months of Mr. Yrigoyen's then-current annual base salary, payable in the form of salary continuation, plus, if Mr. Yrigoyen elects and subject to certain other conditions, payment of Mr. Yrigoyen's premiums to continue his group health coverage under COBRA until the earlier of (i) 12 months following the date of such termination; or (ii) the date Mr. Yrigoyen becomes covered under another employer's health plan. In addition, Mr. Yrigoyen's employment agreement provides that, in the event of a change of control of the Company or his employment is terminated by the Company for any reason other than For Cause, all unvested shares under outstanding equity grants to Mr. Yrigoyen, if any, shall automatically accelerate and become fully vested.

The agreement provides the following definitions of "For Cause" and "Good Reason": (a) "For Cause" is (i) Mr. Yrigoyen commits a crime involving dishonesty, breach of trust, or physical harm to any person; (ii) Mr. Yrigoyen willfully engages in conduct that is in bad faith and materially injurious to the Company, including without limitation misappropriation of trade secrets, fraud or embezzlement; (iii) Mr. Yrigoyen commits a material breach of this Agreement or the Proprietary Information Agreement, which breach is not cured within twenty calendar days after written notice to Executive from the Company (to the extent curable); (iv) Mr. Yrigoyen willfully refuses to implement or follow a lawful policy or directive of the Company, which breach is not cured within twenty calendar days after written notice to Mr. Yrigoyen from the Company; or (v) Mr. Yrigoyen engages in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally. The Company may terminate Mr. Yrigoyen's employment For Cause at any time, without any advance notice. The Company shall pay Mr. Yrigoyen all compensation to which Mr. Yrigoyen is entitled up through the date of termination, subject to any other rights or remedies of the Company under law, and thereafter all obligations of the Company under this Agreement shall cease.

Outstanding Equity Awards At Fiscal Year-End

The following table summarizes the aggregate number of option and stock awards held by our named executive officers at September 30, 2023:

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)
Dr. Terrence W. Norchi	312	- (1)	560.00	03/23/2024		0
	250	- (2)	304.00	01/21/2025		
	221	- (3)	448.00	08/17/2025		
	781	- (4)	624.00	05/02/2026		
	406	- (5)	1,040.00	02/02/2027		
	225	- (6)	680.00	07/18/2028		
	625	- (7)	366.72	12/19/2029		
	625	- (8)	164.48	09/26/2031		
	417	208 (9)	164.48	09/26/2031		
	217	564 (10)	64.16	11/9/2032		
Michael S. Abrams	260	52 (11)	212.64	05/02/2031		
	145	72 (12)	164.48	09/26/2031		
	156	406 (13)	64.16	11/9/2032		
Daniel M. Yrigoyen	67	26 (14)	144.00	06/29/2031		
	83	41 (15)	164.48	09/26/2031	93 (16)	19,500
	41	52 (17)	96.8	05/23/2032		
	86	225 (18)	64.16	11/9/2032		

(1) Represents an option to purchase 312 shares of Common Stock with a grant date of March 23, 2014. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, 25% of the shares shall vest 12 months following the date of grant and 1/24th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing April 23, 2015.

(2) Represents an option to purchase 250 shares of Common Stock with a grant date of January 22, 2015. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, 25% of the shares shall vest 12 months following the date of grant and 1/24th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing February 22, 2016.

(3) Represents an option to purchase 221 shares of Common Stock with a grant date of August 18, 2015. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, and 1/36th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing September 18, 2015.

(4) Represents an option to purchase 781 shares of Common Stock granted on May 3, 2016. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vesting immediately, the remaining unvested Shares subject to the Option shall vest on each of the next thirty-six (36) monthly anniversaries of the date of grant.

(5) Represents an option to purchase 406 shares of Common Stock granted on February 3, 2017. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vesting immediately, the remaining unvested Shares subject to the Option shall vest on each of the next thirty-six (36) monthly anniversaries of the date of grant.

(6) Represents an option to purchase 225 shares of Common Stock with a grant date of July 19, 2018. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, and 1/36th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing August 19, 2018.

(7) Represents an option to purchase 625 shares of Common Stock with a grant date of December 20, 2019. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant, and 1/36th of the remaining shares shall vest on each of the monthly anniversaries of the grant date, commencing January 20, 2019.

(8) Represents an option to purchase 625 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with 33% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(9) Represents an option to purchase 625 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(10) Represents an option to purchase 781 shares of Common Stock with a grant date of November 10, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(11) Represents an option to purchase 312 shares of Common Stock with a grant date of May 3, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with 30% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(12) Represents an option to purchase 218 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(13) Represents an option to purchase 562 shares of Common Stock with a grant date of November 10, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(14) Represents an option to purchase 93shares of Common Stock with a grant date of July 30,2021. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(15) Represents an option to purchase 125 shares of Common Stock with a grant date of September 27, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(16) Represents an option to purchase 93 shares of Common Stock with a grant date of July 30, 2021. The vesting period of the shares underlying the option commenced on the date of grant, with 25% of the shares vested immediately on the date of grant and the remaining shares to vest in 24 equal installments commencing on the first anniversary on the date of grant.

(17) Represents an option to purchase 93 shares of Common Stock with a grant date of May 24, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant.

(18) Represents an option to purchase 312 shares of Common Stock with a grant date of November 10, 2022. The vesting period of the shares underlying the option commenced on the date of grant, with shares to vest in 36 equal installments commencing on the first anniversary on the date of grant

Compensation of Directors

On March 23, 2014, our Board adopted a director compensation policy for non-employee directors. That policy provides that effective the first calendar quarter of 2014, the person serving as the Chairman of our Board receives an aggregate annual cash fee of $190,000 for that chairperson role, and all other non-employee directors receive an annual cash fee of $50,000.

The following table summarizes all compensation paid to our non-employee directors during the fiscal year ended September 30, 2023

Director Compensation Table

	Fees Earned or Paid In Cash ($)	Stock Awards ($)	Option Awards ($)	All other Compensation ($)	Total ($)
Punit Dhillon (1)	12,500	-	8,100	-	20,600
Laurence Hicks (2)	-	-	8,100	-	8,100
Guy L. Fish (3)	-	-	8,100	-	8,100

(1)Mr. Dhillon was appointed as a member of the Board on July 19, 2018. The aggregate number of shares of Common Stock underlying option awards outstanding as of September 30, 2023 held by Mr. Dhillon was 781.

(2)Mr. Hicks was appointed as a member of the Board on September 27, 2021. The aggregate number of shares of Common Stock underlying option awards outstanding as of September 30, 2023 held by Mr. Hicks was 312.

(3)Dr. Fish was appointed as a member of the Board on December 31, 2021. The aggregate number of shares of Common Stock underlying option awards outstanding as of September 30, 2023 held by Dr. Fish was 312.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Related Party Transactions

During fiscal years 2023 and 2022, other than with respect to matters relating to the Company's compensation arrangements with its executive officers, there were no transactions between the Company or any of its subsidiaries and any "Related Person" (as that term is defined in Item 404 of Regulation S-K) that would be required to be reported pursuant to Item 404 of Regulation S-K other than the following:

On June 22, 2020, the Company entered into a Series J Warrant Issuance Agreement (the "**Keyes Sulat Agreement**") with the Keyes Sulat Revocable Trust (the "**Trust**"), also a holder of outstanding Series D Warrants, resulting in approximately $82,000 of proceeds as a result of the full exercise of the Trust's Series D Warrants. Under the terms of the Keyes Sulat Agreement, in exchange for fully exercising the Trust's remaining Series D Warrants for 284 shares of Common Stock on June 22, 2020, the Trust was issued Series J Warrants to purchase 213 shares of Common Stock at an exercise price of $400.00 over a 1 year term. James R. Sulat, a former member of the Board, is a co-trustee of the Trust, of which members of Mr. Sulat's immediate family are beneficiaries. Mr. Sulat disclosed his interest in the Trust to the Board prior to its approval of the transaction and abstained from voting on the transaction. As of October 25, 2023, no Series J Warrants remain outstanding.

On July 6, 2022 a Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the First Closing. The investment made in the First Closing made by the Board member and executive officers totaled $80,000.

On August 30, 2023 a Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the Bridge Offering. The investment made in the Bridge Offering made by the Board member and executive officers totaled approximately $7,500.

Review, Approval or Ratification of Transactions with Related Persons

Due to the small size of our Company, at this time we have determined to rely on our full Board to review related party transactions and identify and prevent conflicts of interest. Our Board reviews a transaction in light of the affiliations of the director, officer, employee or stockholder and the affiliations of such person's immediate family. Transactions are presented to our Board for approval before they are entered into or, if that is not possible, for ratification after the transaction has occurred. If our Board finds that a conflict of interest exists, then it will determine the appropriate remedial action, if any. Our Board approves or ratifies a transaction if it determines that the transaction is consistent with the best interests of the Company and its stockholders. The procedures described above have been approved by resolutions adopted by our Board.

Subject to some exceptions, Nasdaq Listing Rule 5605(a)(2) provides that an independent director is a person other than an executive officer or other employee of the Company or any other individual having a relationship which, in the opinion of our Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Under Nasdaq Listing Rule 5605(a)(2) and subject to certain exceptions, a director will not be deemed to be independent if (a) the director is, or at any time during the past three years was, an employee of ours; (b) the director or a member of the director's immediate family or a person living with such director (collectively, a "**Related Party**") has received more than $120,000 in compensation from us during any twelve-month period within the preceding three years, other than compensation for service as a director or as a non-executive employee (in the case of Related Party), benefits under a tax-qualified retirement plan or non-discretionary compensation; (c) a Related Party is, or in the past three years has been, an executive officer of ours; (d) the director or a Related Party is an executive officer, partner or controlling shareholder of a company that makes payments to, or receives payments from, us in an amount which, in any twelve-month period during our past three fiscal years, exceeds the greater of 5% of the recipient's consolidated gross revenues for that year or $200,000 (except for payments arising solely from investments in our securities or payments under non-discretionary charitable contribution matching programs); (e) the director or a Related Party is employed as an executive officer of another company where at any time during the preceding three years one of our executive officers served on the compensation committee of such company; and (f) the director or a Related Party is a current partner of our independent public accounting firm, or has worked for such firm in any capacity on our audit at any time during the past three years.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information regarding the beneficial ownership of our Common Stock by (i) each person who, to our knowledge, beneficially owns more than 5% of our Common Stock; (ii) each of our directors and named executive officers; and (iii) all of our directors and executive officers as a group. Unless otherwise indicated in the footnotes to the following table, the address of each person named in the table is: c/o Arch Therapeutics, Inc., 235 Walnut St., Suite #6, Framingham, Massachusetts 01702. The information set forth in the table below is based on 586,195 shares of our Common Stock outstanding on October 25, 2023. Shares of our Common Stock subject to options, warrants, or other rights currently exercisable or exercisable within 60 days of October 25, 2023 are deemed to be beneficially owned and outstanding for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not deemed outstanding for computing the percentage of any other person.

The following table is presented after taking into account the applicable ownership limitation to which certain holders of our securities are subject to. In general, the ownership limitation prevents holders from exercising the warrant to the extent such exercise would result in the holder owning more shares than a certain ownership percentage, which is initially set below 5%, and such ownership limitation may be waived at the holder's discretion, provided that such waiver will not become effective until the 61st day after delivery of such waiver notice.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned (1)
5%+ Stockholders:		
Oasis Capital, LLC (2)	37,500	6.40%
Bigger Capital Fund, LP & District 2 Capital Fund LP (3)	37,500	6.40%
Walleye Opportunities Master Fund Ltd (4)	37,500	6.40%
Cavalry Fund I LP (5)	37,500	6.40%
Brandt & Mona Wilson (6)	37,500	6.40%
Ana and Michael Parker (7)	37,500	6.40%
Andrew Stahl (8)	37,500	6.40%
Sixth Borough Capital Fund, LP (9)	37,500	6.40%
Named Executive Officers and Directors:		
Terrence Norchi (10)	14,149	2.39%
Punit Dhillon (11)	733	*
Laurence Hicks (12)	2,737	*
Michael Abrams (13)	2,899	*
Daniel Yrigoyen (14)	399	*
Guy Fish (15)	251	*
Named Officers and Directors as a Group	21,170	3.56%

* Less than 1%.
**Excluding any shares and/or Investor Warrants issued in connection with the over-allotment option, if any.

Shares of our Common Stock subject to options, warrants, or other rights currently exercisable or convertible or exercisable or convertible within 60 days of October 25, 2023, are deemed to be beneficially owned and outstanding for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not deemed outstanding for computing the percentage of any other person.

(1) Except as otherwise indicated, we believe that each of the beneficial owners of the Common Stock listed previously, based on information furnished by such owners, has sole investment and voting power with respect to the shares listed as beneficially owned by such owner, subject to community property laws where applicable. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities.

(2) Represents 37,500 shares of Common Stock owned by Oasis Capital, LLC. Excludes (a) 16,412 shares of Common Stock issuable upon conversion of the First Notes (the "**First Conversion Shares**"); (b) 15,091 First Warrants; (c) 3,419 shares of Common Stock issuable upon conversion of the Second Notes (the "**Second Conversion Shares**"); (d) 6,288 Second Warrants; (e) 9,611 shares of Common Stock issuable upon conversion of the Third Notes (the "**Third Conversion Shares**"); (f) 17,675 Third Warrants; (g) 125,656 Bridge Pre-Funded Warrants; and (h) 319,096 Common Warrants, all of which are subject to conversion or exercise restrictions that prohibit conversion or exercise until such time as the holder would not beneficially own, after such conversion or exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Oasis Capital, LLC has not waived such limitation.

(3) Represents 37,500 shares of Common Stock owned by, and split evenly between, Bigger Capital Fund, LP and District 2 Capital Fund LP with a common control person. Excludes (a) 16,412 First Conversion Shares; (b) 15,091 First Warrants; (c) 3,419 Second Conversion Shares; (d) 6,288 Second Warrants; (e) 123,682 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (f) 319,082 Common Warrants with unsatisfied exercise restrictions held in the aggregate by Bigger Capital Fund, LP and District 2 Capital Fund LP, all of which are subject to conversion or exercise restrictions that prohibit conversion or exercise until such time as the holder would not beneficially own, after such conversion or exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, neither Bigger Capital Fund, LP, nor District 2 Capital Fund LP has waived such limitation.

(4) Represents 37,500 shares of Common Stock owned by Walleye Opportunities Master Fund Ltd. Excludes (a) 122,035 Bridge PreFunded Warrants with unsatisfied exercise restrictions; and (b) 319,070 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Walleye Opportunities Master Fund Ltd has not waived such limitation.

(5) Represents 37,500 shares of Common Stock owned by Cavalry Fund I LP. Excludes (a) 6,565 First Conversion Shares; (b) 6,036 First Warrants; (c) 1,368 Second Conversion Shares; (d) 2,515 Second Warrants; (e) 123,133 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (f) 319,078 Common Warrants with unsatisfied exercise restrictions, all of which are subject to conversion or exercise restrictions that prohibit conversion or exercise until such time as the holder would not beneficially own, after such conversion or exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Cavalry Fund I LP has not waived such limitation.

(6) Represents 37,500 shares of Common Stock owned individually by Brandt and Mona Wilson. Excludes (a) 122,035 Bridge PreFunded Warrants with unsatisfied exercise restrictions; and (b) 319,070 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, neither Brandt Wilson nor Mona Wilson had waived such limitation.

(7) Represents (i) 29,431 shares of Common Stock owned individually by Ana Parker, Michael A. Parker's spouse; (ii) 4,757 shares of Common Stock owned individually by Mr. Parker; (iii) 3,125 shares of Common Stock owned through Tungsten, of which Mr. Parker is the sole manager and (iv) 188 shares of restricted stock granted to Mr. Parker on September 27, 2021. Excludes (a) 10,308 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; (b) 68,686 Common Warrants with unsatisfied exercise restrictions; (c) 12,945 First Conversion Shares; (d) 6,036 First Warrant Shares; (e) any of the 2,143 shares of Common Stock that may be acquired upon the exercise of Series I Warrants (which expire October 18, 2024); or (f) any of the 2,930 shares that may be acquired upon the exercise of Series K Warrants (which expire on August 11, 2026), since such warrants cannot be exercised until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case such waiver will become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, neither Ms. Parker nor Mr. Parker have waived such limitation.

(8) Represents 37,500 shares of Common Stock owned individually by Andrew Stahl. Excludes (a) 122,035 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (b) 319,070 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Mr. Stahl had not waived such limitation.

(9) Represents 37,500 shares of Common Stock owned by Sixth Borough Capital Fund, LP. Excludes (a) 7,984 Bridge Pre-Funded Warrants with unsatisfied exercise restrictions; and (b) 90,967 Common Warrants with unsatisfied exercise restrictions, all of which are subject to exercise restrictions that prohibit exercise until such time as the holder would not beneficially own, after such exercise, more than 4.99% or 9.99% (as the case may be) of the outstanding shares of Common Stock; provided, however, that the holder may waive such ownership limitation, in which case any waiver would become effective sixty-one (61) days after the holder's delivery of such waiver notice. As of October 25, 2023, Sixth Borough Capital Fund, LP has not waived such limitation.

(10) Represents (a) 6,250 shares of Common Stock held by Twelve Pins Partners, LLC, with respect to which Dr. Norchi is the sole member and holds sole voting and investment control; (b) 887 shares issued to Dr. Norchi upon the closing of the Merger in exchange for the cancellation of shares of Common Stock and convertible notes of ABS owned by him immediately prior to the closing of the Merger; (c) 706 shares of restricted stock granted to Dr. Norchi on May 3, 2016; (d) 406 shares of restricted stock granted to Dr. Norchi on February 3, 2017; (e) 225 shares of restricted stock granted to Dr. Norchi on July 19, 2018; (f) 328 First Conversion Shares; (g) 302 First Warrants; and (h) 45 First Inducement Shares; (i) 4,141 shares subject to options exercisable within 60 days after October 25, 2023; and (j) 858 shares of common stock purchased. Excludes 1,716 Common Warrants with unsatisfied exercise restrictions. Dr. Norchi disclaims beneficial ownership of the securities held by Twelve Pins Partners, LLC except to the extent of his pecuniary interest therein

(11) Represents 734 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023

(12) Represents 421 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023. Includes (i) 17 shares of Common Stock, (ii) 492 First Conversion Shares, (iii) 453 First Warrant Shares, (iv) 68 First Inducement Shares; and (v) 1,287 shares of common stock held by Drake Partners Equity LLC, in which Mr. Hicks has an ownership interest. Excludes 2,573 Common Warrants with unsatisfied exercise restrictions held by Drake Partners Equity LLC, in which Mr. Hicks has an ownership interest.

(13) Represents (i) 492 First Conversion Shares; (ii) 453 First Warrant Shares; (iii) 68 First Inducement Shares; (iv) 1,287 shares of common stock purchased, and (v) 600 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023. Excludes 2,573 Common Warrants with unsatisfied exercise restrictions.

(14) Represents 94 shares of restricted stock granted to Mr. Yrigoyen on July 30, 2021, and 306 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023.

(15) Represents 252 shares of Common Stock subject to options exercisable within 60 days after October 25, 2023.

LEGAL MATTERS

The validity of the Common Stock being offered hereby has been passed upon for us by McDonald Carano LLP, Reno, Nevada.

EXPERTS

Baker Tilly US, LLP, an independent registered public accounting firm, has audited our consolidated financial statements as of and for the years ended September 30, 2022 and 2021, as stated in its report appearing herein, and such audited consolidated financial statements have been so included in reliance upon the report of such firm given upon its authority as experts in accounting and auditing. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website, athttp://www.sec.gov, that contains registration statements, reports, proxy statements and other information regarding registrants that file electronically with the SEC, including us. Our website address is http://www.archtherapeutics.com. We have not incorporated by reference into this prospectus the information on, or that can be accessed through, our website, and you should not consider it to be a part of this document. You should not rely on any information on that website in making your decision to purchase shares of our Common Stock.

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus is part of that registration statement. This prospectus does not contain all of the information set forth in the registration statement or the exhibits to the registration statement. For further information with respect to us and the securities we are offering pursuant to this prospectus, you should refer to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete, and you should refer to the copy of that contract or other documents filed as an exhibit to the registration statement. You may read or obtain a copy of the registration statement at the SEC's website referred to above.

Arch Therapeutics, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements give effect to a 1-for-8 reverse stock split of the common stock of Arch Therapeutics, Inc. and Subsidiary (the "Company") which will take place immediately prior to the effectiveness of the registration statement. The following report is in the form which will be furnished by Baker Tilly US, LLP, an independent registered public accounting firm, upon completion of the 1-for-8 reverse stock split of the common stock of the Company described in Note 1 to the consolidated financial statements and assuming that from December 28, 2022, except for the effects of the 1-for-200 reverse stock split described in Note 2, as to which the date is January 23, 2023, to the date of such completion, no other material events have occurred that would affect the consolidated financial statements or the required disclosures therein.

/s/ Baker Tilly, US, LLP
Tewksbury, Massachusetts

November 8, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of Arch Therapeutics, Inc. and Subsidiary

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Arch Therapeutics, Inc. and Subsidiary (the "Company") as of September 30, 2022 and 2021, the related consolidated statements of operations, changes in stockholders' deficit, and cash flows for each of the two years in the period ended September 30, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended September 30, 2022, in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty

The accompanying consolidated financial statements have been prepared assuming that Arch Therapeutics, Inc. and Subsidiary will continue as a going concern. As discussed in Notes 1 and 2 to the consolidated financial statements, the Company has an accumulated deficit, has suffered significant net losses and negative cash flows from operations, only recently commenced generating limited operating revenues and has limited working capital that raises substantial doubt about its ability to continue as a going concern. Management's plans regarding these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accounting for Complex Financial Instruments

As described in Note 10, the Company entered a transaction (the 2022 Note Offering) that included the issuance of $4.23 million in aggregate principal of senior secured convertible promissory notes, 7,979 shares of Common Stock, warrants to purchase 53,195 shares of the Company's common stock (the 2022 Warrants) and warrants to purchase 3,939 shares of the Company's common stock (the 2022 Placement Agent Warrants). In addition, in conjunction with the 2022 Note Offering, certain Series 2 note holders exchanged their notes in the aggregate amount of approximately $700,000 of principal and interest (the Series 2 exchange), for senior secured convertible promissory notes of the Company.

We identified the accounting for these complex financial instruments, including the evaluation for potential embedded derivatives, accounting for the Series 2 exchange, and the classification of the 2022 Warrants and the 2022 Placement Agent Warrants as a critical audit matter. The application of the accounting guidance applicable to the transaction, including the evaluation for potential embedded derivatives, accounting for the Series 2 exchange, and the classification of the related warrants is complex, and therefore, applying such guidance to the contract terms is complex and requires significant management judgement. Auditing these elements involved especially complex auditor judgement due to the nature of the terms of these instruments, and the effort required to address these matters, including the extent of specialized skills and knowledge required.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others:

- Inspecting the agreements associated with the transaction and evaluating the completeness and accuracy of the Company's technical accounting analysis and application of the relevant accounting literature.

- Utilizing personnel with specialized knowledge and skills in technical accounting to assist in assessing management's analysis of the senior secured convertible promissory notes and 2022 Warrants and 2022 Placement Agent warrants, and the Series 2 exchange, including the evaluation of potential embedded derivatives, and the classification of the 2022 Warrants and 2022 Placement Agent warrants including: (i) evaluating the contracts to identify relevant terms that affect the recognition in the consolidated financial statements, and (ii) assessing the appropriateness of conclusions reached by management.

We have served as the Company's auditor since 2013.

Tewksbury, Massachusetts
December 28, 2022, except for the effects of the 1-for-200 reverse stock split described in Note 2, as to which the date is January 23, 2023. (November , 2023 as to the effects of the 1-for-8 reverse stock split discussed in Note 1)

Arch Therapeutics, Inc. and Subsidiary
Consolidated Balance Sheets
As of September 30, 2022 and 2021

	September 30, 2022	September 30, 2021
ASSETS		
Current assets:		
Cash	$ 746,940	$ 2,266,639
Inventory	1,414,848	1,093,765
Prepaid expenses and other current assets	436,407	307,341
Total current assets	2,598,195	3,667,745
Long-term assets:		
Property and equipment, net	2,044	5,240
Other assets	3,500	3,500
Total long-term assets	5,544	8,740
Total assets	$ 2,603,739	$ 3,676,485
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 1,328,000	$ 408,083
Accrued expenses and other liabilities	318,505	319,464
Insurance premium financing	247,933	-
Current portion of Series 1 convertible notes	550,000	-
Current portion of accrued interest	127,781	-
Current portion of derivative liability	748,275	1,000,000
Total current liabilities	3,320,494	1,727,547
Long-term liabilities:		
Series 1 convertible notes	-	550,000
Series 2 convertible notes	450,000	1,050,000
Senior secured convertible notes, net of discount and issuance costs	2,362,273	-
Accrued interest	204,575	167,137
Derivative liability	459,200	1,207,475
Total long-term liabilities	3,476,048	2,974,612
Total liabilities	6,796,542	4,702,159
Commitments and contingencies (Note 15)		
Stockholders' equity (deficit):		
Common stock, $0.001 par value, 500,000 shares authorized as of September 30, 2022 and 2021, 156,179 and 148,232 shares issued as of September 30, 2022 and 2021, and 156,211 and 147,950 outstanding as of September 30, 2022 and 2021	156	148
Additional paid-in capital	50,879,814	48,771,097
Accumulated deficit	(55,072,773)	(49,796,919)
Total stockholders' deficit	(4,192,803)	(1,025,674)
Total liabilities and stockholders' deficit	$ 2,603,739	$ 3,676,485

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Operations
For the Years Ended September 30, 2022 and 2021

	Fiscal Year Ended September 30, 2022	Fiscal Year Ended September 30, 2021
Revenue	$ 15,652	$ 11,565
Operating expenses:		
Cost of revenues	51,489	26,282
Selling, general and administrative expenses	4,519,636	5,009,323
Research and development expenses	1,153,333	1,353,084
Total costs and expenses	5,724,458	6,388,689
Loss from operations	(5,708,806)	(6,377,124)
Other (expense) income:		
Interest expense	(567,048)	(150,531)
Gain on forgiveness of loan	-	178,229
Decrease to fair value of derivative	1,000,000	108,944
Total other income	432,952	136,642
Net loss	$ (5,275,854)	$ (6,240,482)
Loss per share - basic and diluted		
Net loss per common share - basic and diluted	$ (35.18)	$ (45.38)
Weighted common shares - basic and diluted	149,947	137,501

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Changes in Stockholders' Deficit
For the Years Ended September 30, 2022 and 2021

Fiscal Year Ended September 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2021	147,950	$ 148	$ 48,771,097	$ (49,796,919)	$ (1,025,674)
Net loss	-	-	-	(5,275,854)	(5,275,854)
Issuance of common stock and warrants, net of financing costs	7,979	8	1,609,133	-	1,609,141
Vesting of restricted stock Issued	250	-	-	-	-
Stock-based compensation expense	-	-	499,584	-	499,584
Balance at September 30, 2022	156,179	$ 156	$ 50,879,814	$ (55,072,773)	$ (4,192,803)

Fiscal Year Ended September 30, 2021	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2020	120,653	$ 121	$ 42,055,825	$ (43,556,437)	(1,500,491)
Net loss	-	-	-	(6,240,482)	(6,240,482)
Issuance of common stock and warrants, net of financing costs	26,953	27	6,219,206	-	6,219,233
Vesting of restricted stock issued	344	-	-		-
Stock-based compensation expense	-	-	496,066	-	496,066
Balance at September 30, 2021	147,950	$ 148	$ 48,771,097	$ (49,796,919)	$ (1,025,674)

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Cash Flows
For the Years Ended September 30, 2022 and 2021

	Fiscal Year Ended September 30, 2022	Fiscal Year Ended September 30, 2021
Cash flows from operating activities:		
Net loss	$ (5,275,854)	$ (6,240,482)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation	3,196	2,587
Stock-based compensation	499,583	496,066
Decrease to fair value of derivative	(1,000,000)	(108,944)
Inventory obsolescence charge	248,073	181,988
Accretion of discount and debt issuance costs on 2022 Notes	302,049	-
Gain on forgiveness of loan	-	(178,229)
Changes in operating assets and liabilities:		
(Increase) decrease in:		
Inventory	(569,156)	(307,760)
Prepaid expenses and other current assets	225,124	(91,668)
Increase (decrease) in:		
Accounts payable	846,869	66,033
Accrued interest	265,000	151,285
Accrued expenses and other liabilities	(959)	70,496
Net cash used in operating activities	(4,456,075)	(5,958,628)
Cash flows from investing activities:		
Purchases of property and equipment	-	(3,275)
Net cash used in investing activities	-	(3,275)
Cash flows from financing activities:		
Repayment of insurance premium financing	(106,257)	-
Proceeds received from convertible notes	-	1,050,000
Proceeds received from senior secured convertible notes	3,525,000	-
Proceeds from issued common stock and warrants, net of financing costs	-	6,219,233
Payment of 2022 Financing debt issuance costs	(482,367)	-
Net cash provided by financing activities	2,936,376	7,269,233
Net (decrease) increase in cash	(1,519,699)	1,307,330
Cash, beginning of year	2,266,639	959,309
Cash, end of year	$ 746,940	$ 2,266,639
Non-cash financing activities:		
Financing of insurance premium	$ 354,190	$ -
Issuance of restricted stock	$ 8,959	$ -
Fair value of 2022 Warrants issued (see Note 10)	$ 1,470,133	$ -
Fair value of 2022 Inducement Shares issued (see Note 10)	$ 314,523	$ -
Exchange of Series 2 Convertible Notes into Senior Secured Notes (See Note 10)	$ 699,781	$ -
Issuance of restricted stock in consideration for services performed	$ 30,840	$ 103,750
Fair Value of 2022 Placement Agent Warrants (see Note 10)	$ 219,894	-
Unpaid issuance costs in accounts Payable	$ 73,048	$ -

The accompanying notes are an integral part of these consolidated financial statements.

Notes to the Consolidated Financial Statements

1. DESCRIPTION OF BUSINESS

Arch Therapeutics, Inc. (together with its subsidiary, the "*Company*" or "*Arch*") was incorporated under the laws of the State of Nevada on September 16, 2009, under the name "Almah, Inc.". Effective June 26, 2013, the Company completed a merger (the "*Merger*") with Arch Biosurgery, Inc. (formerly known as Arch Therapeutics, Inc.), a Massachusetts corporation ("*ABS*"), and Arch Acquisition Corporation ("*Merger Sub*"), the Company's wholly owned subsidiary formed for the purpose of the transaction, pursuant to which Merger Sub merged with and into ABS and ABS thereby became the wholly owned subsidiary of the Company. As a result of the acquisition of ABS, the Company abandoned its prior business plan and changed its operations to the business of a biotechnology company. The Company's principal offices are located in Framingham, Massachusetts.

ABS was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006, as Clear Nano Solutions, Inc. On April 7, 2008, ABS changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. Effective upon the closing of the Merger, ABS changed its name from Arch Therapeutics, Inc. to Arch Biosurgery, Inc.

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5® Advanced Wound System, and has devoted substantially all of the Company's operational effort to the research, development and regulatory programs necessary to turn the Company's core technology into commercial products. To date, the Company has principally raised capital through the issuance of convertible debt, and the issuance of units consisting of its common stock, $0.001 par value per share ("*Common Stock*"), and warrants to purchase Common Stock ("*warrants*").

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of its potential future products. However, there can be no assurance that the Company will be successful in securing additional resources when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Reverse Stock Split

On July 18, 2023, the board of directors of the Company (the "Board") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "Amendment") to provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company executed a written consent approving the Amendment. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering. Although the Reverse Split is not yet effective, in order to achieve a consistent presentation of share data and per share information throughout the entire prospectus, all the relevant information relating to numbers of shares and per share information contained in these financial statements has been retrospectively adjusted to reflect the Reverse Split for all periods presented on the assumption that a 1-for-8 reverse stock split would have become effective since the earliest date covered by these consolidated financial statements.

No fractional shares will be issued in connection with the Reverse Split. We will round up any fractional shares resulting from the Reverse Split to the nearest whole share. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America ("*US GAAP*").

Basis of Presentation

The consolidated financial statements include the accounts of Arch Therapeutics, Inc. and its wholly owned subsidiary, Arch Biosurgery, Inc., a biotechnology company. All intercompany accounts and transactions have been eliminated in consolidation.

On January 6, 2023, the directors of the Company authorized a reverse share split of the issued and outstanding Common Shares in a ratio of 200:1, effective January 17, 2023 (the "*Reverse Share Split*"). All information included in these consolidated financial statements has been adjusted, on a retrospective basis, to reflect the Reverse Share Split, unless otherwise stated.

Use of Estimates

Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates.

Recently Issued and Adopted Accounting Guidance

In August 2020, the FASB issued ASU 2020-06, "*Debt with Conversion and other* Options (subtopic 470-20) and *Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40)*" ("*ASU 2020-06*"). The purpose of ASU 2020-06 is to address issues identified as a result of the complexity associated with applying generally accepted accounting principles ("*GAAP*") for certain financial instruments with characteristics of liabilities and equity. The amendments in ASU 2020-06 are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2023. Early adoption is permitted but no earlier than fiscal years beginning after December 15, 2020. The Company early adopted ASU 2020-06 using the full retrospective method, during our first quarter of fiscal year 2022, and the impact was considered immaterial on our consolidated financial statements.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. The Company had no cash equivalents as of September 30, 2022 and 2021.

Inventories

Inventories are stated at the lower of cost or net realizable value. The cost of inventories comprises expenditures incurred in acquiring the inventories, the cost of conversion and other costs incurred in bringing them to their existing location and condition. The cost of raw materials, goods-in-process and finished goods are determined on a First in First out (FiFo) basis. When determining net realizable value, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash. The Company maintains its cash in bank deposits accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to any significant credit risk on cash.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful life of the related asset. Upon sale or retirement, the cost and accumulated depreciation are eliminated from their respective accounts, and the resulting gain or loss is included in income or loss for the period. Repair and maintenance expenditures are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment when circumstances indicate the carrying value of an asset may not be recoverable in accordance with FASB ASC Topic 360, *Property, Plant and Equipment.* For assets that are to be held and used, impairment is recognized when the estimated undiscounted cash flows associated with the asset or group of assets is less than their carrying value. If impairment exists, an adjustment is made to write the asset down to its fair value, and a loss is recorded as the difference between the carrying value and fair value. Fair values are determined based on quoted market values, discounted cash flows or internal and external appraisals, as applicable. Assets to be disposed of are carried at the lower of carrying value or estimated net realizable value. For the years ended September 30, 2022 and 2021 there has not been any impairment of long-lived assets.

Leases

The Company determines if an arrangement is a lease at its inception. Operating lease right-of-use ("*ROU*") assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As our lease does not provide an implicit interest rate, the Company used an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Income Taxes

In accordance with FASB ASC Topic 740, *Income Taxes* ("*ASC 740*"), the Company recognizes deferred tax assets and liabilities for the expected future tax consequences or events that have been included in our consolidated financial statements and/or tax returns. Deferred tax assets and liabilities are based upon the differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions when management determines that it is more likely than not that a loss will be incurred related to these matters and the amount of the loss is reasonably determinable.

Revenue

In accordance with FASB ASC Topic 606, *Revenue Recognition*, the Company recognizes revenue through a five-step process: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) a performance obligation is satisfied.

The Company's source of revenue is product sales. Contracts with customers contain a single performance obligation and the Company recognizes revenue from product sales when the Company has satisfied our performance obligation by transferring control of the product to the customers. Control of the product transfers to the customer upon shipment from the Company's third-party warehouse. The Company launched a reimbursement support program in September 2022. Under the terms of the program, the invoice amount may be adjusted through full or partial write-offs based on actual reimbursement amounts paid by for Medicare and Medicaid Services ("CMS") for AC5 units applied and billed by doctors. As such, revenue, if any, for the units shipped in connection with the Company's reimbursement support program will be booked in future periods when all conditions have been satisfied.

Cost of Revenues

Cost of revenues includes product costs, warehousing, overhead allocation and royalty expenses.

Research and Development

The Company expenses internal and external research and development costs, including costs of funded research and development arrangements, in the period incurred.

Accounting for Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with the guidance of FASB ASC Topic 718, *Compensation-Stock Compensation* ("*ASC 718*"), which requires all share-based payments be recognized in the consolidated financial statements based on their fair values. In accordance with ASC 718, the Company has elected to use the Black-Scholes option pricing model to determine the fair value of options granted and recognizes the compensation cost of share-based awards on a straight-line basis over the vesting period of the award.

The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by the fair value of the common stock and a number of other assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The expected life for awards uses the simplified method for all "plain vanilla" options, as defined in ASC 718-10-S99, and the contractual term for all other employee and non-employee awards. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our awards. The dividend yield assumption is based on history and the expectation of paying no dividends. Stock-based compensation expense, when recognized in the consolidated financial statements, is based on awards that are ultimately expected to vest.

Fair Value Measurements

The Company measures both financial and nonfinancial assets and liabilities in accordance with FASB ASC Topic 820,*Fair Value Measurements and Disclosures*, including those that are recognized or disclosed in the consolidated financial statements at fair value on a recurring basis. The standard created a fair value hierarchy which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs that reflect the Company's own views about the assumptions market participants would use in pricing the asset or liability.

At September 30, 2022 and 2021, the carrying amounts of cash, accounts payables and accrued expenses and other liabilities approximate fair value because of their short-term nature. The carrying amounts for the Convertible Notes (See Notes 11 and 12) approximate fair value because borrowing rates and the terms are similar to comparable market participants. The carrying amounts of the Derivative Liabilities (See Note 7) are valued using Level 3 inputs and are recognized in the consolidated financial statements at fair value.

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with FASB ASC Topic 815, *Derivatives and Hedging* ("*ASC 815*"). Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate.

Complex Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks. The Company evaluates its financial instruments, including warrants, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. The Company values its derivatives using the Black-Scholes option-pricing model or other acceptable valuation models, including Monte-Carlo simulations. Derivative instruments are valued at inception, upon events such as an exercise of the underlying financial instrument, and at subsequent reporting periods. The classification of derivative instruments, including whether such instruments should be recorded as liabilities, is re-assessed at the end of each reporting period.

The Company reviews the terms of debt instruments, equity instruments, and other financing arrangements to determine whether there are embedded derivative features, including embedded conversion options that are required to be bifurcated and accounted for separately as a derivative financial instrument. Additionally, in connection with the issuance of financing instruments, the Company may issue freestanding options and warrants, including options or warrants to non-employees in exchange for consulting or other services performed.

The Company accounts for its common stock warrants in accordance with Accounting Standards Codification ("ASC") 815,*Derivatives and Hedging* ("ASC 815"). Based upon the provisions of ASC 815, the Company accounts for common stock warrants as liabilities if the warrant requires net cash settlement or gives the holder the option of net cash settlement, or it fails the equity classification criteria. The Company accounts for common stock warrants as equity if the contract requires physical settlement or net physical settlement or if the Company has the option of physical settlement or net physical settlement and the warrants meet the requirements to be classified as equity. Common stock warrants classified as liabilities are initially recorded at fair value on the grant date and remeasured at fair value each balance sheet date with the offset adjustments recorded in change in fair value of warrant liability within the consolidated statements of operations. Common stock warrants classified as equity are initially measured at fair value on the grant date and are not subsequently remeasured.

Financial Statement Reclassification

Certain balances in the prior year consolidated financial statements have been reclassified for comparison purposes to conform to the presentation in the current year consolidated financial statements. These reclassifications had no effect on the reported results of operations or financial position.

Subsequent Events

The Company evaluated all events or transactions through December 28, 2022, the date which these consolidated financial statements were issued. Please note the following matters deemed to be subsequent events.

CMS HCPCS Code Status

On December 5, 2022, the Company announced that the Centers for Medicare and Medicaid Services ("CMS") made a preliminary recommendation to establish a dedicated Healthcare Common Procedure Coding System ("HCPCS") Level II billing code specific to AC5® Advanced Wound System ("AC5"). The preliminary recommendation was discussed at CMS' First Biannual 2022 HCPCS Public Meeting, which was held on November 30, 2022. The HCPCS code would better enable providers to bill third party payors for AC5® Advanced Wound System that is used in doctors' offices. Although the establishment of a dedicated HCPCS code does not guarantee coverage or reimbursement, a HCPCS code specific to AC5® Advanced Wound System would also enhance the Company's ability to work directly with payors and expand access in outpatient settings.

Going Concern Basis of Accounting

As reflected in the consolidated financial statements, the Company has an accumulated deficit as of September 30, 2022, has suffered significant net losses and negative cash flows from operations, only recently commenced generating limited operating revenues, and has limited working capital. The continuation of the Company's business as a going concern is dependent upon raising additional capital, the ability to successfully market and sell its product and eventually attaining and maintaining profitable operations. In particular, as of September 30, 2022, the Company will be required to raise additional capital, obtain alternative means of financial support, or both, in order to continue to fund operations, and therefore there is substantial doubt about the Company's ability to continue as a going concern. The Company expects to incur substantial expenses into the foreseeable future for the research, development and commercialization of its current and potential products. In addition, the Company will require additional financing in order to seek to license or acquire new assets, research and develop any potential patents and the related compounds, and obtain any further intellectual property that the Company may seek to acquire. Finally, some of our product candidates or the materials contained therein (such as the Active Pharmaceutical Ingredients for our AC5® product line), are manufactured from facilities in areas impacted by the outbreak of the COVID-19, which could result in shortages due to ongoing efforts to address the outbreak. Historically, the Company has principally funded operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of common stock and warrants. Provisions in the Securities Purchase Agreements that the Company entered into on June 28, 2018 ("*2018 SPA*"), and July 6, 2022 ("*2022 SPA*") restrict the Company's ability to effect or enter into an agreement to effect any issuance by the Company or its subsidiary of Common Stock or securities convertible, exercisable or exchangeable for Common Stock (or a combination of units thereof) involving a Variable Rate Transaction (as defined in the 2018 SPA and 2022 SPA) including, but not limited to, an equity line of credit or "At-the-Market" financing facility until the institutional investors in the 2018 SPA collectively own less than 20% of the Series F Warrants and the Series G Warrants purchased by them pursuant to the and 2018 SPA, respectively and for a period of six months pursuant to the 2022 SPA. In addition, under the 2022 SPA, we are required to complete an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by February 15, 2023. See Note 6 for more information on the 2018 Financing, including the terms of the Series F Warrants and Series G Warrants. and Note 10 for more information on the 2022 Note Financing, including the terms of the 2022 Warrants and 2022 Placement Agent Warrants.

The 2021 SPA contains certain restrictions on our ability to conduct subsequent sales of our equity securities (See Note 9). The continued spread of COVID-19 and uncertain market conditions may also limit the Company's ability to access capital. If the Company is unable to obtain adequate capital, the Company may be required to reduce the scope, delay, or eliminate some or all of its planned activities. These conditions, in the aggregate, raise substantial doubt as to the Company's ability to continue as a going concern.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The consolidated financial statements do not include any adjustments that might result from this uncertainty.

3. PROPERTY AND EQUIPMENT

At September 30, 2022 and 2021, property and equipment consisted of:

	Estimated Useful Life (in years)	September 30, 2022	September 30, 2021
Furniture and fixtures	5	$ 9,357	$ 9,357
Leasehold improvements	Life of Lease	8,983	8,983
Computer equipment	3	14,416	14,416
Lab equipment	5	1,000	1,000
		33,756	33,756
Less - accumulated depreciation		31,712	28,516
Property and equipment, net		$ 2,044	$ 5,240

For the years ended September 30, 2022 and 2021 depreciation expense recorded was $3,196 and $2,587, respectively.

4. INVENTORIES

Inventories consist of the following:

	September 30, 2022	September 30, 2021
Finished Goods	$ 9,063	$ 249,571
Goods-in-process	1,405,785	844,194
Total	$ 1,414,848	$ 1,093,765

The Company capitalizes inventory that has been produced for commercial sale and has been determined to have a probable future economic benefit. The determination of whether or not the inventory has a future economic benefit requires estimates by management, to the extent that inventory is expected to expire prior to being sold or used for research and development or used for samples, the Company will write down the value of inventory. In evaluating the net realizable value of the inventory, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

5. INSURANCE PREMIUM FINANCING

In July 2022, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is approximately $354,000 and incurs interest at a rate of 2.99%. The Company is required to make monthly payments of approximately $35,000 through April 2023. The outstanding balance as of September 30, 2022 was approximately $248,000.

6. REGISTERED DIRECT OFFERINGS

On September 30, 2016, the Company filed a registration statement with the SEC utilizing a “shelf” registration process, which was subsequently declared effective by the SEC on October 20, 2016 (such registration statement, the “*Shelf Registration Statement*”). Under the Shelf Registration Statement, the Company may offer and sell any combination of its Common Stock, warrants, debt securities, subscription rights, and/or units comprised of the foregoing to raise up to $50,000,000 in gross proceeds.

On February 20, 2017, the Company entered into a Securities Purchase Agreement (the “2017 SPA”) with six accredited investors (collectively, the "2017 Investors") providing for the issuance and sale by the Company to the 2017 Investors of an aggregate of 6,355 units at a purchase price of $960.00 per unit in a registered offering (the “2017 Financing”). The securities comprising the units sold in the 2017 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant equal to 55% of the shares of Common Stock at an exercise price of $1,200.00 per share (“Series F Warrant”) at any time prior to the fifth anniversary of the issuance date of the Series F Warrant subject to certain restrictions on exercise (the "2017“ Warrants”) and the shares issuable upon exercise of the 2017 Warrants (the "2017 Warrant Shares”).

On June 28, 2018, the Company entered into a Securities Purchase Agreement (“2018 SPA”) with eight accredited investors (collectively, the “2018 Investors”) providing for the issuance and sale by the Company to the 2018 Investors of an aggregate of 5,669 units at a purchase price of $800.00 per unit in a registered offering (“2018 Financing”). The securities comprising the units sold in the 2018 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase up to a number of shares of the Company’s Common Stock equal to 75% of the shares of Common Stock at an exercise price of $1,120.00 per share (“*Series G Warrant*”) at any time prior to the fifth anniversary of the issuance date of the Series G Warrant subject to certain restrictions on exercise (the “*2018 Warrants*”) and the shares issuable upon exercise of the 2018 Warrants (the “2018 Warrant Shares”).

On May 12, 2019, the Company entered into a Securities Purchase Agreement ("*2019 SPA*") with five accredited investors (collectively, the "*2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of 5,385 units at a purchase price of $520.00 per unit in a registered offering ("*2019 Financing*"). The securities comprising the units sold in the 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $640.00 per share ("*Series H Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series H Warrant subject to certain restrictions on exercise (the "*2019 Warrants*") and the shares issuable upon exercise of the *2019* Warrants (the "*2019 Warrant Shares*").

During the years ended September 30, 2022 and 2021, no Series F, Series G or Series H Warrants had been exercised. As of September 30, 2022, up to 4,252 and 5,385 shares may be acquired upon the exercise of the Series G and Series H Warrants, respectively.

During the year ended September 30, 2022, all 3,495 remaining Series F Warrants expired.

7. Derivative Liabilities

The Company accounted for the Series F Warrants, Series G Warrants and the Series H Warrants in accordance with ASC 815-10. Since the Company may be required to purchase its Series F Warrants, Series G Warrants and Series H Warrants for an amount of cash equal to $288.00, $176.00 and $85.28, respectively, for each share of Common Stock ("Minimum") they are recorded as liabilities at the greater of the Minimum or fair value. They are marked to market each reporting period through the Consolidated Statement of Operations. During the year ended September 30, 2022, the Company recognized income of $1,000,000 for the expiration of the Series F Warrants.

On the respective closing dates, the derivative liabilities related to the Series G Warrants and Series H Warrants were recorded at an aggregate fair value of $1,628,113. Given that the fair value of the derivative liabilities was less than the net proceeds, the remaining proceeds were allocated to Common Stock and additional-paid-in-capital. For the fiscal year ended September 30, 2021, the Company recorded income of $108,944 in connection with the decrease in the fair value of the derivative liability.

Fair Value Measurements Using Significant Unobservable Inputs - Year Ended September 30, 2022
(Level 3)

	Series F	Series G	Series H
Beginning balance at September 30, 2021	$ 1,000,000	$ 748,275	$ 459,200
Issuances	-	-	-
Adjustments for the expiration of warrant	(1,000,000)	-	-
Ending balance at September 30, 2022	$ -	$ 748,275	$ 459,200

Fair Value Measurements Using Significant Unobservable Inputs - Year Ended September 30, 2021
(Level 3)

	Series F	Series G	Series H
Beginning balance at September 30, 2020	$ 1,000,000	$ 748,275	$ 568,144
Issuances	-	-	-
Adjustments to estimated fair value	-	-	(108,944)
Ending balance at September 30, 2021	$ 1,000,000	$ 748,275	$ 459,200

The derivative liabilities are recorded as liabilities at September 30, 2022 using the greater of the minimum value or the Black Scholes Model with the following assumptions. As of September 30, 2022, the derivative liabilities are recorded at their minimum value.

	Series G	Series H
Closing price per share of Common Stock	$ 30.72	$ 30.72
Exercise price per share	$ 1,120.00	$ 640.00
Expected volatility	132.97%	122.50%
Risk-free interest rate	4.05%	4.14%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	0.69	1.57

During the year ended September 30, 2022, the Series F Warrants expired.

The derivative liabilities are recorded as liabilities at September 30, 2021 using the greater of the minimum value or the Black Scholes Model with the following assumptions. As of September 30, 2021, the derivative liabilities are recorded at their minimum value.

	Series F	Series G	Series H
Closing price per share of Common Stock	$ 0.96	$ 0.96	$ 0.96
Exercise price per share	$ 1,200.00	$ 1,120.00	$ 640.00
Expected volatility	90.28%	87.40%	86.59%
Risk-free interest rate	0.04%	0.19%	0.41%
Dividend yield	-	-	-
Remaining expected term of underlying securities (years)	0.34	1.70	2.58

8. OCTOBER 2019 REGISTERED DIRECT OFFERING

On October 16, 2019, the Company entered into a Securities Purchase Agreement (the "*October 2019 SPA*") with seven accredited investors (collectively, the "*October 2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of 8,929 units at a purchase price of $280.00 per unit in a registered offering ("*October 2019 Financing*"). The securities comprising the units sold in the October 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $352.00 per share ("*Series I Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series I Warrant subject to certain restrictions on exercise and the shares issuable upon exercise of the Series I Warrants (collectively, the " *October 2019 Warrant Shares*"). As of October 18, 2019, the Company recorded the 8,929 shares as Common Stock. Pursuant to the Engagement Agreement (as defined below), the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 670 shares (the "*Placement Agent Warrants*"). The 2019 Placement Agent Warrants have substantially the same terms as the Series I Warrants, except that the exercise price of the Placement Agent Warrants is $350.00 per share and the term of the Placement Agent Warrants is five years.

The gross proceeds to the Company from the October 2019 Financing, which were received as of October 18, 2019, were approximately $2.5 million before deducting financing costs of approximately $333,000 which includes approximately $158,000 of placement fees. The number of shares of the Company's Common Stock into which each of the Series I Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series I Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

The Company engaged H.C. Wainwright as its exclusive institutional investor placement agent (the "*Placement Agent*") in connection with the October 2019 SPA pursuant to an engagement agreement dated as of October 10, 2019 (the "*2019 Engagement Agreement*"). In consideration for the services provided by the Placement Agent, the Placement Agent was entitled to receive cash fees ranging from 6.0% to 8.2% of the gross proceeds received by the Company, as well as reimbursement for all reasonable expenses incurred by it in connection with its engagement. The Company received gross proceeds of approximately $2.5 million in the aggregate, resulting in a fee of approximately $158,000.

During the year ended September 30, 2022, no Series I Warrants or Placement Agent Warrants have been exercised. As of September 30, 2022, up to 8,929 and 670 shares may be acquired upon the exercise of the Series I Warrants and Placement Agent Warrants, respectively.

Common Stock

At October 18, 2019 the Closing Date of the October 2019 Financing, the Company issued 8,929 shares of Common Stock.

Equity Value of Warrants

The Company accounted for the Series I Warrants and the Placement Agent Warrants relating to the aforementioned October 2019 Registered Direct Offering in accordance with ASC 815-40. Because the Series I Warrants and the Placement Agent Warrants are indexed to the Company's stock, they are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements.

9. 2021 REGISTERED DIRECT OFFERING

On February 11, 2021, the Company entered into a Securities Purchase Agreement (the "*2021 SPA*") with certain institutional and accredited investors (collectively, "*2021 Investors*") providing for the issuance and sale by the Company to the 2021 Investors of an aggregate of 26,954 shares (the "Shares") of the Company's Common Stock, and warrants (the "*Series K Warrants*") to purchase an aggregate of 20,215 shares (the "*Warrant Shares*") of Common Stock, at a combined offering price of $256.00 per share (the "*2021 Financing*"). The Series K Warrants have an exercise price of $272.00 per share and are exercisable for a period of 5.5 years. The aggregate gross proceeds for the sale of the Shares and Series K Warrants were approximately $6.9 million, before deducting the Placement Agent's fees and expenses and other offering expenses payable by the Company, of approximately $700,000. Pursuant to an engagement agreement dated as of February 8, 2021 (the "*2021 Engagement Agreement*"), by and between the Company and the Placement Agent, the Company agreed to pay the Placement Agent cash fees equal to (i) 7.5% of the gross proceeds received by the Company from certain investors in the 2021 Financing, and (ii) 6.0% of the gross proceeds received by the Company from certain investors that had pre-existing relationships with the Company. In addition, the Placement Agent received a one-time non-accountable expense fee of $10,000, up to $50,000 for fees and expenses of legal counsel and other out-of-pocket expenses and $10,000 for clearing expenses. Pursuant to the 2021 Engagement Agreement, the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 7.5% of the aggregate number of Shares sold to the 2021 Investors, or warrants to purchase up to 2,022 shares (the "2021 *Placement Agent Warrants*") of the Company's Common Stock. The 2021 Placement Agent 2 Warrants have substantially the same terms as the Series K Warrants, except that the exercise price of the 2021 Placement Agent Warrants is $320.00 per share. The 2021 Engagement Agreement contained indemnity and other customary provisions for transactions of this nature.

The 2021 SPA contained certain restrictions on the Company's ability to conduct subsequent sales of the Company's equity securities. In particular, we were prohibited from entering into or effecting a Variable Rate Transaction (as defined in the 2021 SPA) until February 11, 2022; provided, however, the Company may enter into and effect an at-the-market offering facility with the Placement Agent.

The number of shares of the Company's Common Stock into which each of the Series K Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series K Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). During the fiscal year ended September 30, 2022, no Series K Warrants or 2021 Placement Agent Warrants had been exercised. As of September 30, 2022, up to 20,215 and 2,022 shares may be acquired upon the exercise of the Series K Warrants and Placement Agent Warrants, respectively.

Common Stock

On February 17, 2021 the Closing Date of the 2021 Financing, the Company issued 26,954 shares of Common Stock.

Equity Value of Warrants

The Company accounted for the Series K Warrants and the Placement Agent 2 Warrants relating to the aforementioned February 2021 Registered Direct Offering in accordance with ASC 815-40, *Derivatives and Hedging*. Because the Series K Warrants and the Placement Agent 2 Warrants are indexed to the Company's stock, they are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements.

10. 2022 CONVERTIBLE NOTE OFFERING

On July 7, 2022, the Company announced that it had entered into a Securities Purchase Agreement (the "2022 *SPA*") with certain institutional and accredited individual investors (collectively, the "*2022 Investors*") providing for the issuance and sale by the Company to the 2022 Investors of (i) Senior Secured Convertible Promissory Notes (each a "*2022 Note*" and collectively, the "*2022 Notes*") in the aggregate principal amount of $4.23 million, which includes an aggregate $0.705 million original issue discount in respect of the 2022 Notes; (ii) Warrants (the "*2022 Warrants*"), to purchase an aggregate of 53,195 shares (the "*2022 Warrant Shares*") of Common Stock; and (iii) 7,979 shares of Common Stock (the "*2022 Inducement Shares*") equal to 15% of the principal amount of the 2022 Notes divided by the closing price of the Common Stock immediately prior to the Closing Date (as defined below). The 2022 Notes, 2022 Warrants and 2022 Inducement Shares were issued as part of a convertible note offering authorized by the Company's board of directors (the "*2022 Note Offering*"). The aggregate gross proceeds for the sale of the 2022 Notes, 2022 Warrants and 2022 Inducement Shares was approximately $3.5 million, before deducting debt issuance costs of $775,000 consisting of fair value of the placement agent's warrants of approximately $220,000 and other estimated fees and offering expenses payable by the Company of approximately $555,000. The closing of the sales of these securities under the 2022 SPA occurred on July 6, 2022 (the "*2022 Closing Date*").

The 2022 Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the Closing Date until the 2022 Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes. Any amount of principal or interest on the 2022 Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full.

The 2022 Notes are convertible into shares of Common Stock at the option of each holder of the 2022 Notes from the date of issuance at $73.12 (the "*Conversion Price*") through the later of (i) January 6, 2024 (the "*Maturity Date*") and (ii) the date of payment of the Default Amount (as defined in the 2022 Note); *provided, however*, certain 2022 Notes include a provision preventing such conversion if, as a result, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than 4.99% of the outstanding shares of the Common Stock (as applicable, the "*Ownership Limitation*") immediately after giving effect to the Conversion; and *provided further*, the holder, upon notice to us, may increase or decrease the Ownership Limitation; *provided that* (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of the Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The Conversion Price is subject to adjustment as set forth in the 2022 Notes.

The 2022 Notes contain customary events of default, which include, among other things, (i) our failure to pay when due any principal or interest payment under the 2022 Notes; (ii) our insolvency; (iii) delisting of our Common Stock; (iv) our breach of any material covenant or other material term or condition under the 2022 Notes; and (v) our breach of any representations or warranties under the 2022 Notes which cannot be cured within five (5) days. Further, events of default under the 2022 Notes also include (i) the unavailability of Rule 144 on or after six (6) months from the First Closing Date or January 6, 2023; (ii) our failure to deliver the shares of Common Stock to the 2022 Note holder upon exercise by such holder of its conversion rights under the 2022 Note; (iii) our loss of the "bid" price for its Common Stock and/or a market and such loss is not cured during the specified cure periods; and (iv) our failure to complete an uplisting of our Common Stock to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by February 15, 2023 (an "*Uplist Transaction*").

The 2022 Warrants (i) have an exercise price of $79.52 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrant if, as a result of the exercise of the 2022 Warrant, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. The holder, upon notice to us, may increase or decrease the Ownership Limitation; provided that (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of our Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The number of shares of Common Stock into which each of the 2022 Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the 2022 Warrants, including standard antidilution provisions, and adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In the event of a Fundamental Transaction (as defined in the 2022 Warrants) holders of the 2022 Warrants would be entitled to receive alternate consideration in connection with such Fundamental Transaction, but only to the extent that holders of our Common Stock were entitled to receive the same. Moreover, as long as the 2022 Notes and 2022 Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes and 2022 Warrants of such more favorable terms and to use best efforts to effect such terms in the 2022 Notes and 2022 Warrants. Finally, because of the Company's net loss position, the shares underlying the 2022 Notes on an as converted basis are excluded from the calculation of basic and fully diluted earnings per share. Similarly, because of the Company's net loss position, there was no impact on the calculation of basic and fully diluted earnings per share related to the classification of the 2022 Warrants as participating securities.

The Company retained a placement agent in connection with the private placement of $2.4 million of the 2022 Notes to the institutional investors. The Company paid the 2022 Placement Agent 10% of the gross proceeds in the 2022 Placement Agent from certain institutional investors, or $240,000 and we also reimbursed the 2022 Placement Agent approximately $58,000 for non-accountable banking fees, legal fees and other expenses. In addition, we issued 2022 Placement Agent Warrants to purchase an aggregate of 3,939 shares of Common Stock. An additional $1.1 million was raised in connection with the placement of the private placement notes, which included certain accredited investors some of which were Board members and executive officers of the Company. Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the 2022 Senior Secured Convertible Notes. The investment made in the 2022 Senior Secured Convertible Notes made by the Board member and executive officers totaled $80,000.

In addition, as a part of the 2022 Convertible Notes Offering, certain holders (the "*Series Holders*") of the Company's 10% Series 2 Convertible Notes (the "*Series Notes*") agreed to exchange their Series 2 Notes for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "*Subordinated Notes*"). The Subordinated Notes are convertible into 9,571 shares of Common Stock at a conversion price of $73.12. The holders of the Subordinated Notes did not receive warrants or inducement shares. In connection with the issuance of the Subordinated Notes, the Series Holders entered into a subordination agreement on July 6, 2022 (the "*Closing Date*") to subordinate their rights in respect of the Subordinated Notes to the rights of the Investors in respect of the 2022 Notes. As of July 7, 2022, approximately $600,000 of the Series 2 Notes and accrued interest of approximately $100,000 were included in the exchange.

Further, in connection with the 2022 Note Financing, we are required to complete an Uplist Transaction by February 15, 2023 under the terms of the 2022 Notes. If we are unable to complete an Uplist Transaction, then the 2022 Notes will become immediately due and payable and we will be obligated to pay to each 2022 Note holder an amount equal to 125%, multiplied by the sum of the outstanding principal amount of the 2022 Notes plus any accrued and unpaid interest on the unpaid principal amount of the 2022 Notes to the date of payment, plus any default interest and any other amounts owed to the holder, payable in cash or shares of Common Stock.

During the fiscal year ended September 30, 2022, the Company recorded interest expense on the 2022 Notes of approximately $421,000 consisting of accrued interest of approximately $119,000 and accretion of original issue discount debt discount and issuance costs of approximately $302,000.

Allocation of Proceeds

The Company accounted for the Senior Secured Convertible Notes, the 2022 Warrants, and the 2022 Inducement Shares relating to the aforementioned July 2022 Senior Secured Convertible Promissory Notes in accordance with ASC 470-20-25-2 "Debt" which states that the allocation of the proceeds from the financing shall be based on the relative fair values of the securities issued at the time of the issuance. The 2022 Inducement Shares and the 2022 Warrants, which are indexed to the Company's stock, are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements. The allocated value of the 2022 Inducement Shares and the 2022 Warrants are $314,523 and $1,470,133, respectively. The allocated value of the Senior Secured Convertible Notes are $1,740,344 were allocated as long-term liabilities in the accompanying consolidated financial statements. The fair value of the 2022 Placement Agent Warrants of $219,894 are being accounted for as debt issuance costs and are classified within stockholders' equity (deficit) in the accompanying consolidated financial statements. As of September 30, 2022, the net carrying amount of the Senior Secured Convertible Notes was $2,362,273 with unamortized debt discount and issuance costs of $2,567,507.

The 2022 Warrants and the 2022 Placement Agent Warrants were valued as of July 6, 2022 using the Black Scholes Model with the following assumptions:

	2022 Investor Warrants	2022 Placement Agent Warrants
Closing price per share of Common Stock	$ 79.84	$ 79.84
Exercise price per share	$ 79.52	$ 80.48
Expected volatility	88.44%	88.44%
Risk-free interest rate	2.96%	2.96%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	5.0	5.0

11. SERIES 1 AND SERIES 2 CONVERTIBLE NOTES

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ("*Series 1 Notes*") and Series 2 Convertible Notes ("Series 2 Notes", and collectively with the Series 1 Notes, the "*Convertible Notes*") in the aggregate principal amount of $550,000 and $1,050,000, respectively. The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. The Convertible Notes provide, among other things, for (i) a term of approximately three years; (ii) the Company's ability to prepay the Convertible Notes, in whole or in part, at any time; (iii) the automatic conversion of the Convertible Notes upon a Change of Control (all capitalized terms not otherwise defined to have the meaning ascribed to such terms of the Convertible Notes) into shares of the Company's Common Stock, at a per share price of $432.00 and $400.00 (the "*Conversion Price*") for the Series 1 Notes and Series 2 Notes, respectively; (iv) the ability of the holders of the Convertible Note (a "*Holder*") to convert the principal of the Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price; (v) the Company's ability to convert all Note Obligations outstanding upon a Qualified Equity Financing into shares of Common Stock at the respective Conversion Price; (vi) the Company's ability to convert the principal of the Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price in the event the volume weighted average price ("*VWAP*") of the Common Stock equals or exceeds $512.00 per share for at least fifteen consecutive Trading Days; (vii) the Company's ability to convert all outstanding Note Obligations into shares of Common Stock at the respective Conversion Price (an "*In-Kind Note Repayment*") in lieu of repaying the Note Obligations outstanding on the Maturity Date, provided, however, that in the case of an In-Kind Note Repayment, the outstanding Note Obligations will be calculated by increasing by thirty-five percent the aggregate sum of the unpaid Principal Amount held by each Holder and the accrued interest at a rate of ten percent per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent of the amount that is converted or prepaid. As consideration for agreeing to subordinate, the premium applicable in connection with an In-Kind Note Repayment at maturity was increased from thirty-five percent to sixty percent.

Beginning June 22, 2015 and through June 30, 2015, the Company entered into a series of substantially similar subscription agreements with 20 accredited investors providing for the issuance and sale by the Company to the 2015 Investors, in a private placement, of an aggregate of 8,995 Units at a purchase price of $352.00 per Unit. Each Unit consisted of a share of Common Stock and a Series D Warrant to purchase a share of Common Stock at an exercise price of $400.00 per share at any time prior to the fifth anniversary of the issuance date of the Series D Warrant and the shares issuable upon exercise of the Series D Warrants.

On June 3, 2020, the Company entered into an agreement (the "*Agreement*") with the holders of a majority (the "*Majority Holders*") of the outstanding warrants classified as "*Series D Warrants*", resulting in approximately $850,000 of proceeds as a result of the full exercise of all Series D Warrants. Under the terms of the Agreement, in exchange for fully exercising their remaining Series D Warrants for 2,955 shares of Common Stock on June 4, 2020, the Majority Holders were issued warrants to purchase 2,216 shares of Common Stock at an exercise price of $400.00 over a 1-year term ("*Series J Warrants*"). On November 6, 2020, as consideration for an investment in the Convertible Notes, the Company entered into an amendment to the Series J Warrants with a holder of a Series J Warrant exercisable for up to 2,110 shares of Common Stock, to extend the term of the Series J Warrant from one year to thirty months.

On June 22, 2020, the Company entered into a Series J Warrant Issuance Agreement (the "*Keyes Sulat Agreement*") with the Keyes Sulat Revocable Trust (the "*Trust*"), also a holder of outstanding Series D Warrants, resulting in approximately $82,000 of proceeds as a result of the full exercise of the Trust's Series D Warrants. Under the terms of the Keyes Sulat Agreement, in exchange for fully exercising the Trust's remaining Series D Warrants for 285 shares of Common Stock on June 22, 2020, the Trust was issued Series J Warrants to purchase 214 shares of Common Stock at an exercise price of $400.00 over a one-year term. James R. Sulat, a former member of the Board, is a co-trustee of the Trust, of which members of Mr. Sulat's immediate family are beneficiaries. Mr. Sulat disclosed his interest in the Trust to the Board prior to its approval of the transaction and abstained from voting on the transaction.

As described in Note 10, above, as a part of the 2022 Convertible Notes Offering, certain holders of the Series Notes agreed to exchange Notes with principal amounts of $600,000 and accrued interest of approximately $100,000 for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "*Exchanged Notes*"). As of July 6, 2022, $699,781 of principal and accrued interest of the Series 2 notes was exchanged for the Senior Secured Convertible Notes. In connection with the issuance of the Exchanged Notes, the Series Holders entered into a subordination agreement on the *Closing Date* to subordinate their rights to the rights of the Investors in respect of the 2022 Notes.

During the fiscal years ended September 30, 2022 and 2021, the Company recorded interest expense on the Series 1 and Series 2 Convertible Notes of approximately $146,000 and $150,000, respectively.

12. INCOME TAXES

The principal components of the Company's net deferred tax assets consisted of the following at September 30:

	2022	2021
Net operating loss carryforwards	$ 11,485,524	$ 10,022,020
Capitalized expenditures	1,535,736	1,703,849
Research and development credit carryforwards	946,243	946,158
Stock based compensation	1,427,946	2,352,432
Property and Equipment	2,616	2,740
Accrued expenses	162,191	57,812
Inventory allowance	70,805	62,946
Gross deferred tax assets	15,631,061	15,147,957
Deferred tax asset valuation allowance	(15,631,061)	(15,147,957)
Net deferred tax assets	$ -	$ -

The provision (benefit) for income taxes differs from the tax computed with the statutory federal income tax rate as follows:

	2022	2021
Expected income tax (benefit) at federal statutory rate	21.00%	21.00%
Increase/(Decrease) due to:		
State income taxes - net of federal benefit	3.65%	5.80%
Permanent Differences:		
Key man life insurance	---%	(0.01)%
Stock Based Compensation	(18.10)%	---%
R&D, taken as a credit	(0.23)%	(0.29)%
Adjustment to fair value of derivative	3.98%	0.37%
PPP Loan Forgiveness	---%	0.60%
Other	(1.14)%	(1.41)%
Change in Valuation Allowance	(9.16)%	(26.06)%
Total Income Tax Provision / (Benefit)	---%	---%

As of September 30, 2022 and 2021, the Company had federal net operating loss carryforwards totaling approximately $42,695,000 and $37,018,000, respectively, which may be available to offset future taxable income. The pre-2018 federal net operating loss carryforwards total approximately $21,750,000, and begin to expire in 2026. Due to the CARES Act, federal net operating losses generated in tax years beginning after December 31, 2017 can be carried forward indefinitely. As of September 30, 2022 and 2021, the Company has federal net operating loss carryforwards with an indefinite life of $20,945,000 and $15,268,000. As of September 30, 2022 and 2021, the Company had federal research and experimentation credit carryforwards of $626,000 and $643,000, respectively, which may be available to offset future income tax liabilities and which would begin to expire in 2028.

As of September 30, 2022 and 2021, the Company had state net operating loss carryforwards of approximately $40,367,000 and $36,033,000, respectively, which may be available to offset future taxable income and which would begin to expire in 2030. As of September 30, 2022 and 2021, the Company had state research and development credit carryforwards of $406,000 and $384,000, respectively, which may be able to offset future income tax liabilities and which would begin to expire in 2023.

As the Company has not yet achieved profitable operations, management believes the tax benefits as of September 30, 2022 and 2021 did not satisfy the realization criteria set forth in FASB ASC Topic 740, *Income Taxes*, and therefore has recorded a valuation allowance for the entire deferred tax asset. The valuation allowance increased in 2022 by approximately $483,000 and increased in 2021 by approximately $1,626,000. The Company's effective income tax rate differed from the federal statutory rate due to state taxes and the Company's full valuation allowance and stock based compensation, the latter of which reduced the Company's effective federal income tax rate to zero.

The Company experienced an ownership change as a result of the Merger described in Note 1, causing a limitation on the annual use of the net operating loss carryforwards, which are subject to a substantial annual limitation due to the ownership change limitations set forth in Internal Revenue Code Section 382 and similar state provisions. A formal Section 382 study has not been performed.

As of September 30, 2022, the Company is open to examination in the U.S. federal and certain state jurisdictions for tax years ended September 30, 2022, 2021, 2010 and 2019. In addition, any loss years remain open to the extent that losses are available for carryover to future years. Therefore, the tax years ended 2006 through 2022 remain open for examination by the IRS.

The Coronavirus Aid, Relief and Economic Security (CARES) Act was enacted on March 27, 2020. The CARES Act affected items such as carryback periods for net operating losses, modifications to the net interest deduction limitations and changes to tax depreciation methods. The company has taken the CARES Act into consideration for the tax year ended September 30, 2022 and continues to evaluate the impact of the CARES act on the business.

13. PAYROLL PROTECTION PROGRAM LOAN

On April 25, 2020, the Company executed a promissory note (the "*PPP Note*") evidencing an unsecured loan in the amount of $176,300 under the Paycheck Protection Program (the "*PPP Loan*"). The Paycheck Protection Program (or "*PPP*") was established under the Cares Act and is administered by the U.S. Small Business Administration ("*SBA*"). The Loan has been made through First Republic Bank (the "*Lender*").

The PPP Loan had a two-year term and bears interest at a rate of 1.00% per annum. Monthly principal and interest payments are deferred until the SBA makes a decision on our loan forgiveness application. Unless the PPP Loan is forgiven, the Company would have been required to make monthly payments of principal and interest of approximately $20,000 to the Lender.

The PPP Note contains customary events of default relating to, among other things, payment defaults, providing materially false and misleading representations to the SBA or Lender, or breaching the terms of the PPP Loan documents. The occurrence of an event of default may result in the immediate repayment of all amounts outstanding, collection of all amounts owing from the Company, or filing suit and obtaining judgment.

Under the terms of the CARES Act, PPP Loan recipients can apply for and be granted forgiveness for all or a portion of the loan granted under the PPP. Such forgiveness will be determined, subject to limitations, based on the use of loan proceeds for payment of payroll costs and any payments of mortgage interest, rent, and utilities. However, no assurance is provided that forgiveness for any portion of the PPP Loan will be obtained. During November 2020, the Company applied for forgiveness of the PPP Loan. On May 28, 2021, the Company received notice that the SBA completed review and all principal and interest has been forgiven. For the fiscal year ended September 30, 2021, approximately $178,000 was recorded to Gain on forgiveness of loan in Other Income in the consolidated statements of operations.

14. STOCK-BASED COMPENSATION

2013 Stock Incentive Plan

On June 18, 2013, the Company established the 2013 Stock Incentive Plan (the "*2013 Plan*"). Under the 2013 Plan, during the fiscal year ended September 30, 2021, a maximum number of 19,447 shares of the Company's authorized and available common stock could be issued in the form of options, stock appreciation rights, sales or bonuses of restricted stock, restricted stock units or dividend equivalent rights, and an award may consist of one such security or benefit, or two or more of them in any combination or alternative. The 2013 Plan provides that on the first business day of each fiscal year commencing with fiscal year 2014, the number of shares of our common stock reserved for issuance under the 2013 Plan for all awards except for incentive stock option awards will be subject to increase by an amount equal to the lesser of (A) 1,875 Shares, (B) four (4) percent of the number of shares outstanding on the last day of the immediately preceding fiscal year of the Company, or (C) such lesser number of shares as determined by the Company's Board of Directors (the "*Board*"). The exercise price of each option shall be the fair value as determined in good faith by the Board at the time each option is granted. On October 1, 2021, the aggregate number of authorized shares under the Plan was further increased by 1,875 shares to a total of 21,322 shares.

The exercise price of each option is equal to the closing price of a share of our common stock on the date of grant.

Share-based awards

During the year ended September 30, 2022, the Company granted 297 options to employees and directors and 532 options to consultants to purchase shares of common stock under the 2013 Plan**.**

Share-based compensation expense for awards granted during the year ended September 30, 2022 was based on the grant date fair value estimated using the Black-Scholes Option Pricing Model. The following assumptions were used to calculate the fair value of share-based compensation for the year ended September 30, 2022; expected volatility, 79.44% - 119.44%, risk-free interest rate, 0.13% - 2.85%, expected dividend yield, 0%, expected term, 5.6 years.

Common Stock Options

Stock compensation activity under the 2013 Plan for the year ended September 30, 2022 follows:

	Option Shares Outstanding	Weighted Average Exercise Price	Average Remaining Contractual Term (years)	Weighted Aggregate Intrinsic Value
Outstanding at September 30, 2021	15,562	$ 464.00	1.83	$ 140,151
Awarded	829	$ 48.00		
Forfeited/Cancelled	(4,062)	$ 560.00		
Outstanding at September 30, 2022	12,329	$ 416.00	1.46	$ 16,900
Vested at September 30, 2022	10,316	$ 464.00	1.52	$ -
Vested and expected to vest at September 30, 2022	12,329	$ 416.00	1.46	$ 16,900

As of September 30, 2022, 5,171 shares are available for future grants under the 2013 Plan. Share-based compensation expense recorded in the Company's Consolidated Statements of Operations for the year ended September 30, 2022 and 2021 resulting from stock options awarded to the Company's employees, directors and consultants was approximately $459,000 and $391,000, respectively. Of this amount during the years ended September 30, 2022 and 2021, $148,000 and $124,000, respectively, were recorded as research and development expenses, and $311,000 and $267,000, respectively were recorded as general and administrative expenses in the Company's Consolidated Statements of Operations.

During the years ended September 30, 2022 and 2021, no stock options awarded under the 2013 Stock Incentive Plan were exercised for cash. During the years ended September 30, 2022 and 2021, no stock options awarded under the 2013 Stock Incentive Plan were exercised on a cashless basis.

As of September 30, 2022, there is approximately $181,000 of unrecognized compensation expense related to unvested stock-based compensation arrangements granted under the 2013 Plan. That cost is expected to be recognized over a weighted average period of 2.47 years.

Restricted Stock

On October 14, 2020, the Company awarded 32 shares of Restricted Stock to a consultant. The shares subject to this grant were awarded under the 2013 Plan and vested 90 days from the date of the award.

On January 27, 2021, the Company awarded 313 shares of Restricted Stock to a consultant. The shares subject to this grant were awarded under the 2013 Plan and vested immediately.

On July 30, 2021, the Company awarded 94 shares of Restricted Stock to an employee. The shares subject to this grant were awarded under the 2013 Plan and 32 shares vest on each of the following dates: January 12, 2022, July 12, 2022 and January 12, 2023.

On September 27, 2021, the Company awarded 188 shares of Restricted Stock to a consultant. The shares subject to this grant were awarded under the 2013 Plan and 1/12 of the shares will vest on each of the next twelve monthly anniversaries.

Restricted stock activity in shares under the 2013 Plan for the years ended September 30, 2022 and 2021 follows:

	2022	2021
Non Vested at September 30, 2021 and 2020	282	
Awarded	-	625
Vested	(250)	(344)
Forfeited	-	-
Non Vested at September 30, 2022 and 2021	32	282

The weighted average restricted stock award date fair value information for the years ended September 30, 2022 and 2019 follows:

	2022	2021
Non Vested at September 30, 2021 and 2020	$ 160.00	$ -
Awarded		208.00
Vested	(160.00)	(256.00)
Forfeited		-
Non Vested at September 30, 2022 and 2021	$ 144.00	$ 160.00

For the years ended September 30, 2022 and 2021 compensation expense recorded for the restricted stock awards was approximately $40,000 and $105,000, respectively. As of September 30, 2022, there is approximately $3,000 of unrecognized compensation expense related to unvested stock-based compensation arrangements granted under the 2013 Plan.

15. COMMITMENTS AND CONTINGENCIES

In the ordinary course of business, the Company enters into various agreements containing standard indemnification provisions. The Company's indemnification obligations under such provisions are typically in effect from the date of execution of the applicable agreement through the end of the applicable statute of limitations. The aggregate maximum potential future liability of the Company under such indemnification provisions is uncertain. As of September 30, 2022 and 2021, no amounts have been accrued related to such indemnification provisions.

From time to time, the Company may be exposed to litigation in connection with its operations. The Company's policy is to assess the likelihood of any adverse judgments or outcomes related to legal matters, as well as ranges of probable losses.

MIT Licensing Agreement

In December 2007, the Company entered into a license agreement with MIT pursuant to which the Company acquired an exclusive world-wide license to develop and commercialize technology related to self-assembling peptide compositions, and methods of making and using such compositions in medical and non-medical applications, including claims that cover the Company's proposed products and methods of use thereof. The license also provides non-exclusive rights to additional intellectual property in the fields that cover the Company's proposed products and methods of use thereof, in order to provide freedom to operate. The license provides the Company a right to sublicense the exclusively licensed intellectual property. The Company has not sublicensed the exclusively licensed intellectual property to any party for any field.

In exchange for the licenses granted in the agreement, the Company has paid MIT license maintenance fees and patent prosecution costs. The Company paid license maintenance fees of $50,000 to MIT in the fiscal years ended September 30, 2022 and 2021. For the years ended September 30, 2022 and 2021, the annual MIT license maintenance fees of $50,000 are included in accrued expenses and other liabilities on the Consolidated Balance Sheets. The license maintenance fees and patent prosecution costs cover the contract year beginning January 1 through December 31. Annual license maintenance obligations extend through the life of the patents. In addition, MIT is entitled to royalties on applicable future product sales, if any. The annual payments may be applied towards royalties payable to MIT for that year for product sales.

The Company is obligated to indemnify MIT and related parties from losses arising from claims relating to the exercise of any rights granted to the Company under the license, with certain exceptions. The maximum potential amount of future payments the Company could be required to make under this provision is unlimited. The Company considers there to be a low performance risk as of September 30, 2022.

The agreement expires upon the expiration or abandonment of all patents that are issued and licensed to the Company by MIT under such agreement. The Company expects that patents will be issued from presently pending U.S. and foreign patent applications. Any such patent will have a term of 20 years from the filing date of the underlying application. MIT may terminate the agreement immediately, if the Company ceases to carry on its business, if any nonpayment by the Company is not cured or the Company commits a material breach that is not cured. The Company may terminate the agreement for any reason upon six months' notice to MIT.

Leases

The Company's corporate offices are located in Framingham, MA. During July 2017, we entered into a three-year operating lease commencing October 1, 2017 and ending on September 30, 2020 at our current location, pursuant to which we are obliged to pay annual rent of $38,400 during the first year, $39,600 during the second year and $42,000 during the third year. During August 2020, we extended the lease through September 30, 2021 at our current location pursuant to which we are obligated to pay annual rent of $42,000. During October 2021 we extended the lease for six months through March 31, 2022 at our current location pursuant to which we are obligated to pay $21,000. As of April 1, 2022 we have converted our current lease to a monthly rental and are obligated to pay $3,500 per month. As of September 30, 2022 and 2021, there was no ROU asset or liability. We believe our present offices are suitable for our current and planned near-term operations.

16. RISKS AND UNCERTAINTIES - COVID-19 AND GEOPOLITICAL CONFLICTS

The Company sources its materials and services for its products and product candidates from facilities in areas impacted or which may be impacted by the outbreak of the COVID-19 or geopolitical conflicts. The Company’s ability to obtain future inventory may be impacted, therefore potentially affecting the Company’s future revenue stream. In addition, the Company has historically and principally funded its operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of Common Stock and warrants which may also be impacted by economic conditions beyond the Company’s control as well as uncertainties resulting from geopolitical conflicts, including the recent war in Ukraine. The extent to which the COVID-19 and recent events in Ukraine will impact the global economy and the Company is uncertain and cannot be reasonably measured.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Balance Sheets
As of June 30, 2023 (Unaudited) and September 30, 2022

	June 30, 2023	September 30, 2022
ASSETS		
Current assets:		
Cash	$ 86,542	$ 746,940
Inventory	1,382,938	1,414,848
Prepaid expenses and other current assets	90,538	436,407
Total current assets	1,560,018	2,598,195
Long-term assets:		
Property and equipment, net	728	2,044
Other assets	3,500	3,500
Total long-term assets	4,228	5,544
Total assets	$ 1,564,246	$ 2,603,739
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 2,471,162	$ 1,328,000
Shareholder advances	50,000	-
Shareholder and Third-Party Advances related to Bridge Financing	690,015	-
Accrued expenses and other liabilities	200,522	318,505
Insurance premium financing	-	247,933
Current Portion of Series 2 convertible note	550,000	550,000
Current Portion of Series 1 convertible note	450,000	-
Current Portion of Unsecured convertible notes	1,401,618	-
Current Portion of 2022 Notes	2,945,448	-
Current Portion of Accrued Interest	820,509	127,781
Current portion of derivative liability	-	748,275
Total current liabilities	9,579,274	3,320,494
Long-term liabilities:		
Unsecured convertible notes	-	699,781
Series 2 convertible notes	-	450,000
2022 Notes	-	1,662,492
Accrued interest	-	204,575
Derivative liability	-	459,200
Total long-term liabilities	-	3,476,048
Total liabilities	9,579,274	6,796,542
Commitments and contingencies		
Stockholders' deficit:		
Common stock, $0.001 par value, 12,000,000 and 500,000 shares authorized as of June 30, 2023 and September 30, 2022, 160,657 and 156,592 shares issued as of June 30, 2023 and September 30, 2022 and 160,657 and 156,179 shares outstanding as of June 30, 2023 and September 30, 2022, each respectively	161	157
Additional paid-in capital	51,583,224	50,879,813
Accumulated deficit	(59,598,413)	(55,072,773)
Total stockholders' deficit	(8,015,028)	(4,192,803)
Total liabilities and stockholders' deficit	$ 1,564,246	$ 2,603,739

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Operations (Unaudited)
For the Three and Nine Months Ended June 30, 2023 and 2022

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Nine Months Ended June 30, 2023	Nine Months Ended June 30, 2022
Revenue	$ 13,293	$ 6,261	$ 36,207	$ 14,086
Operating expenses:				
Cost of revenues	18,529	17,140	54,882	51,363
Selling, general and administrative expenses	870,053	836,215	3,225,753	3,308,227
Research and development expenses	139,048	159,846	471,135	922,120
Total costs and expenses	1,027,630	1,013,201	3,751,770	4,281,710
Loss from operations	(1,014,337)	(1,006,940)	(3,715,563)	(4,267,624)
Other income (expense):				
Interest expense	(808,770)	(39,890)	(1,968,274)	(119,671)
Gain on extinguishment of derivative liabilities	-	-	1,158,197	-
Expiration of derivative liability/Series F warrant	-	-	-	1,000,000
Total other income (expense)	(808,770)	(39,890)	(810,077)	880,329
Net loss	$ (1,823,107)	$ (1,046,830)	$ (4,525,640)	$ (3,387,295)
Loss per share - basic and diluted				
Net loss per common share - basic and diluted	$ (11.39)	$ (7.07)	$ (28.61)	$ (22.88)
Weighted common shares - basic and diluted	159,996	148,092	158,168	148,033

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Changes in Stockholders' Deficit (Unaudited)
For the Three and Nine Months Ended June 30, 2023 and 2022

Three Months Ended June 30, 2023	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at March 31, 2023	159,331	$ 159	$ 51,389,059	$ (57,775,306)	(6,386,088)
Net loss	-	-	-	(1,823,107)	(1,823,107)
Stock-based compensation expense	-	-	41,259	-	41,259
Issuance of common stock and warrants, net of financing costs	1,326	2	152,906	-	152,908
Exchange of warrants into common stock	-	-	-	-	-
Balance at June 30, 2023	160,657	$ 161	$ 51,583,224	$ (59,598,413)	$ (8,015,028)

Nine Months Ended June 30, 2023	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2022	156,592	$ 156	$ 50,879,814	$ (55,072,773)	(4,192,803)
Net loss	-	-	-	(4,525,640)	(4,525,640)
Vesting of restricted stock	31	-	-	-	-
Stock-based compensation expense	-	-	213,809	-	213,809
Issuance of common stock and warrants, net of financing costs	2,526	3	440,325	-	440,328
Exchange of warrants into common stock	1,508	1	49,277	-	49,278
Balance at June 30, 2023	160,657	$ 161	$ 51,583,224	$ (59,598,413)	$ (8,015,028)

Three Months Ended June 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balance at March 31, 2022	148,075	$ 148	$ 49,077,812	$ (52,137,384)	$ (3,059,424)
Net loss	-	-	-	(1,046,830)	(1,046,830)
Vesting of restricted stock	47	-	-	-	-
Stock-based compensation expense	-	-	90,755	-	90,755
Balance at June 30, 2022	148,122	$ 148	$ 49,168,567	$ (53,184,214)	$ (4,015,499)

Nine Months Ended June 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance at September 30, 2021	147,950	$ 148	$ 48,771,097	$ (49,796,919)	$ (1,025,674)
Net loss	-	-	-	(3,387,295)	(3,387,295)
Vesting of restricted stock	172	-	-	-	-
Stock-based compensation expense	-	-	397,470	-	397,470
Balance at June 30, 2022	148,122	$ 148	$ 49,168,567	$ (53,184,214)	$ (4,015,499)

The accompanying notes are an integral part of these consolidated financial statements.

Arch Therapeutics, Inc. and Subsidiary
Consolidated Statements of Cash Flows (Unaudited)
For the Nine Months Ended June 30, 2023 and 2022

	Nine Months Ended June 30, 2023	Nine Months Ended June 30, 2022
Cash flows from operating activities:		
Net loss	$ (4,525,640)	$ (3,387,295)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation	1,316	2,397
Stock-based compensation	213,809	397,470
Decrease to fair value of derivative	-	(1,000,000)
Gain on extinguishment of derivative liabilities	(1,158,197)	-
Accretion of discount and debt issuance costs on 2022 Notes and Unsecured convertible notes	1,480,121	-
Inventory obsolescence charge	-	248,073
Changes in operating assets and liabilities:		
(Increase) decrease in:		
Inventory	31,910	(582,572)
Prepaid expenses and other current assets	345,869	223,854
Increase (decrease) in:		
Accounts payable	1,143,162	1,288,130
Accrued interest	488,153	119,671
Accrued expenses and other current liabilities	(167,983)	(96,370)
Net cash used in operating activities	(2,147,480)	(2,786,642)
Cash flows from financing activities:		
Repayment of insurance premium financing	(247,933)	-
Proceeds from shareholder advances	1,228,015	575,000
Proceeds from Unsecured convertible notes	507,000	-
Net cash provided by financing activities	1,487,082	575,000
Net decrease in cash	(660,398)	(2,211,642)
Cash, beginning of year	746,940	2,266,639
Cash, end of period	$ 86,542	$ 54,997
Non-cash financing activities:		
Exchange of Series G and Series H warrants for common stock	$ 49,278	$ -
Issuance of restricted stock	$ 3,019	$ 29,831
Fair value of warrants issued - second close	$ 256,439	$ -
Fair value of inducement shares issued - second close	$ 25,840	$ -
Fair value of placement agent warrants - second close	$ 28,093	$ -
Fair value of warrants issued - third close	$ 137,252	$ -
Fair value of inducement shares issued - third close	$ 15,656	$ -
Conversion of shareholder advance into unsecured convertible note	$ 488,000	$ -

The accompanying notes are an integral part of these consolidated financial statements.

ARCH THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. BASIS OF PRESENTATION AND DESCRIPTION OF BUSINESS

Organization and Description of Business

Arch Therapeutics, Inc. (together with its subsidiary, the "*Company*" or "*Arch*") was incorporated under the laws of the State of Nevada on September 16, 2009, under the name "Almah, Inc.". Effective June 26, 2013, the Company completed a merger (the "*Merger*") with Arch Biosurgery, Inc. (formerly known as Arch Therapeutics, Inc.), a Massachusetts corporation ("*ABS*"), and Arch Acquisition Corporation ("*Merger Sub*"), the Company's wholly owned subsidiary formed for the purpose of the transaction, pursuant to which Merger Sub merged with and into ABS and ABS thereby became the wholly owned subsidiary of the Company. As a result of the acquisition of ABS, the Company abandoned its prior business plan and changed its operations to the business of a biotechnology company. The Company's principal offices are located in Framingham, Massachusetts.

ABS was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006, as Clear Nano Solutions, Inc. On April 7, 2008, ABS changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc. Effective upon the closing of the Merger, ABS changed its name from Arch Therapeutics, Inc. to Arch Biosurgery, Inc.

In the first quarter of 2021, the Company commenced commercial sales of our first product, AC5® Advanced Wound System, and has devoted substantially all of the Company's operational effort to the research, development and regulatory programs necessary to turn the Company's core technology into commercial products. To date, the Company has principally raised capital through the issuance of convertible debt, and the issuance of units consisting of its common stock, $0.001 par value per share ("*Common Stock*") and warrants to purchase Common Stock ("*warrants*").

The Company expects to incur substantial expenses for the foreseeable future relating to research, development and commercialization of its potential future products. However, there can be no assurance that the Company will be successful in securing additional resources when needed, on terms acceptable to the Company, if at all. Therefore, there exists substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments related to the recoverability of assets that might be necessary despite this uncertainty.

Reverse Stock Split

On July 18, 2023, the board of directors of the Company (the "Board") adopted resolutions by unanimous written consent, pursuant to which the Board determined that it is advisable and in the best interests of the Company to amend the Articles of Incorporation of the Company (the "Amendment") to provide for a reverse stock split of the outstanding Common Stock, at a ratio within a range of 1-for-1.5 to 1-for-20, with the exact ratio to be determined by the Board subsequent to the applicable approval by the Company's stockholders, within 1 year following the date of such approval, and without correspondingly decreasing the number of authorized shares of Common Stock (the "**Reverse Split**"). On August 22, 2023, stockholders representing a majority of the voting power of the then outstanding shares of voting stock of the Company executed a written consent approving the Amendment. The Company intends to effect the Reverse Split at a ratio of 1-for-8 prior to the pricing of this offering. Although the Reverse Split is not yet effective, in order to achieve a consistent presentation of share data and per share information throughout the entire prospectus, all the relevant information relating to numbers of shares and per share information contained in these financial statements has been retrospectively adjusted to reflect the Reverse Split for all periods presented on the assumption that a 1-for-8 reverse stock split would have become effective since the earliest date covered by these consolidated financial statements.

No fractional shares will be issued in connection with the Reverse Split. We will round up any fractional shares resulting from the Reverse Split to the nearest whole share. All share and per share information in this prospectus has been adjusted to give effect to the Reverse Split.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying unaudited interim consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America ("*US GAAP*"). The interim consolidated financial statements included herein are unaudited; however, they contain all normal recurring accruals and adjustments that, in the opinion of management, are necessary to present fairly the Company's results of operations and financial position for the interim periods.

Although the Company believes that the disclosures in these unaudited interim consolidated financial statements are adequate to make the information presented not misleading, certain information normally included in the footnotes prepared in accordance with US GAAP has been omitted as permitted by the rules and regulations of the Securities and Exchange Commission ("*SEC*"). These unaudited interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2022, filed with the SEC on December 28, 2022 (the "*Annual Report*").

For a complete summary of the Company's significant accounting policies, please refer to Note 2 included in Item 8 of the Company's Annual Report. There have been no material changes to the Company's significant accounting policies during the nine months ended June 30, 2023.

Basis of Presentation

The consolidated financial statements include the accounts of Arch Therapeutics, Inc. and its wholly owned subsidiary, Arch Biosurgery, Inc., a biotechnology company. All intercompany accounts and transactions have been eliminated in consolidation.

On January 6, 2023, the directors of the Company authorized a reverse share split of the issued and outstanding Common Shares in a ratio of 1:200, effective January 17, 2023 (the "*Reverse Share Split*"). All information included in these consolidated financial statements has been adjusted, on a retrospective basis, to reflect the Reverse Share Split, unless otherwise stated. All outstanding securities entitling their holders to purchase shares of Common Stock or acquire shares of Common Stock, including stock options, restricted stock units, and warrants, were adjusted as a result of the Reverse Stock Split, as required by the terms of those securities.

Use of Estimates

Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenue and expense during the reporting periods. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. The Company had no cash equivalents as of June 30, 2023 and September 30, 2022.

Inventories

Inventories are stated at the lower of cost or net realizable value. The cost of inventories comprises expenditures incurred in acquiring the inventories, the cost of conversion and other costs incurred in bringing them to their existing location and condition. The cost of raw materials, goods-in-process and finished goods are determined on a First in First out (FiFo) basis. When determining net realizable value, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash. The Company maintains its cash in bank deposits accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to any significant credit risk on cash.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful life of the related asset. Upon sale or retirement, the cost and accumulated depreciation are eliminated from their respective accounts, and the resulting gain or loss is included in income or loss for the period. Repair and maintenance expenditures are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment when circumstances indicate the carrying value of an asset may not be recoverable in accordance with the Financial Accounting Standards Board ("*FASB*") Accounting Standards Codification ("*ASC*") Topic 360, *Property, Plant and Equipment*. For assets that are to be held and used, impairment is recognized when the estimated undiscounted cash flows associated with the asset or group of assets is less than their carrying value. If impairment exists, an adjustment is made to write the asset down to its fair value, and a loss is recorded as the difference between the carrying value and fair value. Fair values are determined based on quoted market values, discounted cash flows or internal and external appraisals, as applicable. Assets to be disposed of are carried at the lower of carrying value or estimated net realizable value. For the nine months ended June 30, 2023 and 2022 there has not been any impairment of long-lived assets.

Leases

The Company determines if an arrangement is a lease at its inception. Operating lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. The Company's lease does not provide an implicit interest rate, the Company used an incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Income Taxes

In accordance with FASB ASC Topic 740, *Income Taxes*, the Company recognizes deferred tax assets and liabilities for the expected future tax consequences or events that have been included in the Company's consolidated financial statements and/or tax returns. Deferred tax assets and liabilities are based upon the differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions when management determines that it is more likely than not that a loss will be incurred related to these matters and the amount of the loss is reasonably determinable.

Revenue

In accordance with FASB ASC Topic 606, *Revenue Recognition*, the Company recognizes revenue through a five-step process: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) a performance obligation is satisfied.

The Company's source of revenue is product sales. Contracts with customers contain a single performance obligation and the Company recognizes revenue from product sales when the Company has satisfied our performance obligation by transferring control of the product to the customers. Control of the product transfers to the customer upon shipment from the Company's third-party warehouse. In circumstances where the transaction price is not able to be determined at the time of shipment, the Company does not recognize revenue or any receivable amount until such time that the final transaction price is established.

Cost of Revenue

Cost of revenue includes product costs, warehousing, overhead allocation and royalty expense.

Research and Development

The Company expenses internal and external research and development costs, including costs of funded research and development arrangements, in the period incurred.

Accounting for Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with the guidance of FASB ASC Topic 718, *Compensation-Stock Compensation* ("*ASC 718*"), which requires all share-based payments be recognized in the consolidated financial statements based on their fair values. In accordance with ASC 718, the Company has elected to use the Black-Scholes Option Pricing Model (the "*Black-Scholes Model*") to determine the fair value of options granted and recognizes the compensation cost of share-based awards on a straight-line basis over the vesting period of the award.

The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by the fair value of the Common Stock and a number of other assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The expected life for awards uses the simplified method for all "plain vanilla" options, as defined in ASC 718-10-S99, and the contractual term for all other employee and non-employee awards. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of the Company's awards. The dividend yield assumption is based on history and the expectation of paying no dividends. Stock-based compensation expense, when recognized in the consolidated financial statements, is based on awards that are ultimately expected to vest.

Fair Value Measurements

The Company measures both financial and nonfinancial assets and liabilities in accordance with FASB ASC Topic 820,*Fair Value Measurements and Disclosures*, including those that are recognized or disclosed in the consolidated financial statements at fair value on a recurring basis. The standard created a fair value hierarchy which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs that reflect the Company's own views about the assumptions market participants would use in pricing the asset or liability.

At June 30, 2023 and September 30, 2022, the carrying amounts of cash, accounts payables and accrued expense and other liabilities approximate fair value because of their short-term nature. The carrying amounts for the Series Convertible Notes (See Note 12), 2022 Notes (see Note 11), and Second Notes (see Note 11), and Third Notes (see Note 11) approximate fair value because borrowing rates and terms are similar to comparable market participants.

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with FASB ASC Topic 815, *Derivatives and Hedging* ("*ASC 815*"). Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate. During the nine months ended June 30, 2023, $1,158,197 was recorded to gain on extinguishment of derivative liability for the exchange of the Series G warrants and Series H warrants and $49,278 was recorded as part of shareholder's deficit.

Complex Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks. The Company evaluates its financial instruments, including warrants, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. The Company values its derivatives using the Black-Scholes option-pricing model or other acceptable valuation models, including Monte-Carlo simulations. Derivative instruments are valued at inception, upon events such as an exercise of the underlying financial instrument, and at subsequent reporting periods. The classification of derivative instruments, including whether such instruments should be recorded as liabilities, is re-assessed at the end of each reporting period.

The Company reviews the terms of debt instruments, equity instruments, and other financing arrangements to determine whether there are embedded derivative features, including embedded conversion options that are required to be bifurcated and accounted for separately as a derivative financial instrument. Additionally, in connection with the issuance of financing instruments, the Company may issue freestanding options and warrants, including options or warrants to non-employees in exchange for consulting or other services performed.

The Company accounts for its common stock warrants in accordance with Accounting Standards Codification ("ASC") 815,*Derivatives and Hedging* ("ASC 815"). Based upon the provisions of ASC 815, the Company accounts for common stock warrants as liabilities if the warrant requires net cash settlement or gives the holder the option of net cash settlement, or it fails the equity classification criteria. The Company accounts for common stock warrants as equity if the contract requires physical settlement or net physical settlement or if the Company has the option of physical settlement or net physical settlement and the warrants meet the requirements to be classified as equity. Common stock warrants classified as liabilities are initially recorded at fair value on the grant date and remeasured at fair value each balance sheet date with the offset adjustments recorded in change in fair value of warrant liability within the consolidated statements of operations. Common stock warrants classified as equity are initially measured at fair value on the grant date and are not subsequently remeasured.

Financial Statement Reclassification

Certain balances in the prior year consolidated financial statements have been reclassified for comparison purposes to conform to the presentation in the current period consolidated financial statements. During the nine-month period ended June 30, 2023, the Company reclassified the carrying amount of Exchanged Notes of $699,781 (see Note 12) that were previously included in the 2022 Notes payable to Unsecured convertible notes.

Subsequent Events

The Company evaluated all events or transactions through August 11, 2023, the date which these consolidated financial statements were issued. See note 15 for matters deemed to be subsequent events.

Going Concern Basis of Accounting

As reflected in the consolidated financial statements, the Company has an accumulated deficit as of June 30, 2023, has suffered significant net losses and negative cash flows from operations, only recently commenced generating limited operating revenues, and has limited working capital. The continuation of the Company's business as a going concern is dependent upon raising additional capital, the ability to successfully market and sell its product and eventually attaining and maintaining profitable operations. In particular, as of June 30, 2023, the Company will be required to raise additional capital, obtain alternative means of financial support, or both, in order to continue to fund operations, and therefore there is substantial doubt about the Company's ability to continue as a going concern. The Company expects to incur substantial expenses into the foreseeable future for the research, development and commercialization of its current and potential products. In addition, the Company will require additional financing in order to seek to license or acquire new assets, research and develop any potential patents and the related compounds, and obtain any further intellectual property that the Company may seek to acquire. Finally, some of our product candidates or the materials contained therein (such as the Active Pharmaceutical Ingredients for our AC5® product line), are manufactured from facilities in areas impacted by the outbreak of the COVID-19, which could result in shortages due to ongoing efforts to address the outbreak. Historically, the Company has principally funded operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of common stock and warrants. Provisions in the Securities Purchase Agreements that the Company entered into on July 6, 2022 ("*2022 SPA*"), and July 7, 2023 (the "2023 SPA") restrict the Company's ability to effect or enter into an agreement to effect any issuance by the Company or its subsidiary of Common Stock or securities convertible, exercisable or exchangeable for Common Stock (or a combination of units thereof) with respect to (i) any variable rate debt transactions (as defined in the 2022 SPA), for a period of six months after the date of the 2022 SPA, involving any transaction where the conversion or exercise of the security issued by the Company varies based on the market price of the Common Stock that does not contain a floor price that is more than 50% of the closing price of the Common Stock on the trading day immediately prior to the date of the 2022 SPA, and (ii) any Variable Rate Transaction (as defined in the 2023 SPA) including, but not limited to, an equity line of credit or "At-the-Market" financing facility until twelve (12) months after the closing date of the 2023 SPA. Furthermore, initially, under the 2022 SPA, we were required to complete an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by February 15, 2023. This deadline has been subsequently extended on numerous occasions. Most recently, on July 31, 2023, the Company secured waivers from the required holders of the 2022 Notes, Second Notes and Third Notes to extend the deadline to complete an Uplisting Transaction to August 31, 2023. See Note 11 for more information regarding the 2022 Convertible Note Offering including the terms of the 2022 Warrants and 2022 Placement Agent Warrants, as well as for more information regarding the Amendment No. 1 to the 2022 SPA, and Amendment No. 2 to the 2022 SPA.

The 2023 SPA contains certain restrictions on our ability to conduct subsequent sales of any future securities (See Note 15). The continued spread of COVID-19 and uncertain market conditions may also limit the Company's ability to access capital. If the Company is unable to obtain adequate capital, the Company may be required to reduce the scope, delay, or eliminate some or all of its planned activities. These conditions, in the aggregate, raise substantial doubt as to the Company's ability to continue as a going concern.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The consolidated financial statements do not include any adjustments that might result from this uncertainty.

3. PROPERTY AND EQUIPMENT

At June 30, 2023 and September 30, 2022, property and equipment consisted of:

	Estimated Useful Life (in years)	June 30, 2023	September 30, 2022
Furniture and fixtures	5	$ 9,357	$ 9,357
Leasehold improvements	Life of Lease	8,983	8,983
Computer equipment	3	14,416	14,416
Lab equipment	5	1,000	1,000
		33,756	33,756
Less - accumulated depreciation		33,028	31,712
Property and equipment, net		$ 728	$ 2,044

For the three months ended June 30, 2023 and 2022, depreciation expense recorded was $273 and $799, respectively. For the nine months ended June 30, 2023 and 2022, depreciation expense recorded was $1,316 and $2,397, respectively.

4. INVENTORIES

Inventories consist of the following:

	June 30, 2023	September 30, 2022
Finished Goods	$ 56,828	$ 9,063
Goods-in-process	1,326,110	1,405,785
Total	$ 1,382,938	$ 1,414,848

The Company capitalizes inventory that has been produced for commercial sale and has been determined to have a probable future economic benefit. The determination of whether or not the inventory has a future economic benefit requires estimates by management. To the extent that inventory is expected to expire prior to being sold or used for research and development or used for samples, the Company will write down the value of inventory. In evaluating the net realizable value of the inventory, appropriate consideration is given to obsolescence, excessive levels, deterioration, and other factors.

5. INSURANCE PREMIUM FINANCING

In July 2022, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed was approximately $354,000 and incurred interest at a rate of 2.99%. The Company made monthly payments of approximately $35,000 through April 2023. The outstanding balance as of June 30, 2023 and September 30, 2022 was approximately $0 and $248,000, respectively. As of June 30, 2023, the Company had not entered into a new finance agreement with First Insurance Funding, or any other similar provider.

6. STOCK-BASED COMPENSATION

2013 Stock Incentive Plan

On June 18, 2013, the Company established the 2013 Stock Incentive Plan (the "*2013 Plan*"). Under the 2013 Plan, as of September 30, 2022, a maximum number of 21,322 shares of the Company's authorized and available common stock could be issued in the form of options, stock appreciation rights, sales or bonuses of restricted stock, restricted stock units or dividend equivalent rights, and an award may consist of one such security or benefit, or two or more of them in any combination or alternative. The 2013 Plan provides that on the first business day of each fiscal year commencing with fiscal year 2014, the number of shares of our common stock reserved for issuance under the 2013 Plan for all awards except for incentive stock option awards will be subject to increase by an amount equal to the lesser of (A) 1,875 Shares, (B) four (4) percent of the number of shares outstanding on the last day of the immediately preceding fiscal year of the Company, or (C) such lesser number of shares as determined by the Company's Board of Directors (the "*Board*"). The exercise price of each option shall be the fair value as determined in good faith by the Board at the time each option is granted. On October 1, 2022, the aggregate number of authorized shares under the Plan was further increased by 1,875 shares to a total of 23,197 shares. On June 18, 2023, the 2013 Stock Incentive Plan expired.

The exercise price of each option is equal to the closing price of a share of the Company's Common Stock on the date of grant.

Share-Based Awards

During the nine months ended June 30, 2023, the Company awarded 2,610 options to employees and directors and 454 options to consultants to purchase shares of Common Stock under the 2013 Plan**.**

Share-based compensation expense for awards granted during the nine months ended June 30, 2023 was based on the grant date fair value estimated using the Black-Scholes Model.

Common Stock Options

Stock compensation activity under the 2013 Plan for the nine months ended June 30, 2023 follows:

	Option Shares Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at September 30, 2022	12,329	$ 416.00	1.36	$ 16,900
Awarded	3,063	$ 64.00		
Forfeited/Cancelled	(2,388)	$ 560.00		
Outstanding at June 30, 2023	13,004	$ 312.00	5.72	-
Vested at June 30, 2023	9,927	$ 384.00	4.85	-
Vested and expected to vest at June 30, 2023	13,041	$ 312.00	5.72	-

On June 18, 2023, the 2013 Stock Incentive Plan expired. Therefore no shares are available for future grants under the 2013 Plan as of June 30, 2023.

Share-based compensation expense recorded in the Company's Consolidated Statements of Operations for the three months ended June 30, 2023 and 2022 resulting from options awarded to the Company's employees, directors and consultants was approximately $41,000 and $81,000, respectively. Of this amount, during the three months ended June 30, 2023 and 2022, $7,000 and $29,000, respectively, were recorded as research and development expense, and $34,000 and $52,000, respectively were recorded as general and administrative expense in the Company's Consolidated Statements of Operations. Share-based compensation expense recorded in the Company's Consolidated Statements of Operations for the nine months ended June 30, 2023 and 2022 resulting from options awarded to the Company's employees, directors and consultants was approximately $211,000 and $367,000, respectively. Of this amount, during the nine months ended June 30, 2023 and 2022, $55,000 and $123,000, respectively, were recorded as research and development expense, and $156,000 and $245,000, respectively were recorded as general and administrative expense in the Company's Consolidated Statements of Operations.

During the nine months ended June 30, 2023 and 2022, no options awarded were exercised.

As of June 30, 2023, there is approximately $200,000 of unrecognized compensation expense related to unvested stock-based compensation arrangements granted under the 2013 Plan. That cost is expected to be recognized over a weighted average period of 2.11 years.

Restricted Stock

Restricted stock activity under the 2013 Plan for the three months ended June 30, 2023 and 2022, in shares, follows:

	Three months Ended	
	June 30, 2023	June 30, 2022
Non Vested at March 31, 2023 and 2022	-	157
Vested	-	(47)
Non Vested at June 30, 2023 and 2022	-	110

The weighted grant date fair value average of the restricted stock for the three months ended June 30, 2023 and 2022 follows:

	Three months Ended	
	June 30, 2023	June 30, 2022
Non Vested at March 31, 2023 and 2022	$ -	$ 160.00
Vested	-	(160.00)
Non Vested at June 30, 2023 and 2022	$ -	$ 160.00

Restricted stock activity under the 2013 Plan for the nine months ended June 30, 2023 and 2022, in shares, follows:

	Nine months Ended	
	June 30, 2023	June 30, 2022
Non Vested at September 30, 2022 and 2021	32	282
Vested	(32)	(172)
Non Vested at June 30, 2023 and 2022	-	110

The weighted grant date fair value average of the restricted stock for the nine months ended June 30, 2023 and 2022 follows:

	Nine months Ended	
	June 30, 2023	June 30, 2022
Non Vested at September 30, 2022 and 2021	$ 144.00	$ 160.00
Vested	(144.00)	(160.00)
Non Vested at June 30, 2023 and 2022	$ -	$ 160.00

For the three months ended June 30, 2023 and 2022, compensation expense recorded for the restricted stock awards was approximately $0 and $10,000, respectively. For the nine months ended June 30, 2023 and 2022, compensation expense recorded for the restricted stock awards was approximately $3,000 and $30,000, respectively.

7. REGISTERED DIRECT OFFERINGS

On September 30, 2016, the Company filed a registration statement with the SEC utilizing a "shelf" registration process, which was subsequently declared effective by the SEC on October 20, 2016 (such registration statement, the "*Shelf Registration Statement*"). Under the Shelf Registration Statement, the Company may offer and sell any combination of its Common Stock, warrants, debt securities, subscription rights, and/or units comprised of the foregoing to raise up to $50,000,000 in gross proceeds.

On February 20, 2017, the Company entered into a Securities Purchase Agreement (the "*2017* SPA") with six accredited investors (collectively, the "*2017 Investors*") providing for the issuance and sale by the Company to the 2017 Investors of an aggregate of 6,355 units at a purchase price of $960.00 per unit in a registered offering (the "*2017 Financing*"). The securities comprising the units sold in the 2017 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant equal to 55% of the shares of Common Stock at an exercise price of $1,200.00 per share ("*Series F Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series F Warrant subject to certain restrictions on exercise (the "*2017 Warrants*") and the shares issuable upon exercise of the 2017 Warrants (the "*2017 Warrant Shares*").

On June 28, 2018, the Company entered into a Securities Purchase Agreement ("*2018 SPA*") with eight accredited investors (collectively, the "*2018 Investors*") providing for the issuance and sale by the Company to the 2018 Investors of an aggregate of 5,669 units at a purchase price of $800.00 per unit in a registered offering ("*2018 Financing*"). The securities comprising the units sold in the 2018 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase up to a number of shares of the Company's Common Stock equal to 75% of the shares of Common Stock at an exercise price of $1,120.00 per share ("*Series G Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series G Warrant subject to certain restrictions on exercise (the "*2018 Warrants*") and the shares issuable upon exercise of the 2018 Warrants (the "*2018 Warrant Shares*").

On May 12, 2019, the Company entered into a Securities Purchase Agreement ("*2019 SPA*") with five accredited investors (collectively, the "*2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of 5,385 units at a purchase price of $520.00 per unit in a registered offering ("*2019 Financing*"). The securities comprising the units sold in the 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $640.00 per share ("*Series H Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series H Warrant subject to certain restrictions on exercise (the "*2019 Warrants*") and the shares issuable upon exercise of the *2019* Warrants (the "*2019 Warrant Shares*").

On March 10, 2023, the Company entered into exchange agreements (the "Exchange Agreements") with each holder (the "Warrantholders") of the Company's outstanding Series G Warrants to purchase shares of the Company's common stock, par value $0.001 per share (the "Common Stock") at an exercise price of $1,120.00 per share (the "Series G Warrants") and the Company's outstanding Series H Warrants to purchase shares of Common Stock at an exercise price of $640.00 per share (the "Series H Warrants" and, together with the Series G Warrants, the "Warrants"). Pursuant to the Exchange Agreements, the Warrantholders exchanged 4,252 Series G Warrants for 426 shares of Common Stock and 5,385 Series H Warrants for 1,078 shares of Common Stock. All 3,495 remaining Series F Warrants expired during the fiscal year ended September 30, 2022.

8. Derivative Liabilities

The Company accounted for the Series F Warrants, Series G Warrants and the Series H Warrants in accordance with ASC 815-10. Since the Company was required to purchase its Series F Warrants, Series G Warrants and Series H Warrants for an amount of cash equal to $288.00, $176.00 and $85.28, respectively, for each share of Common Stock (the "Minimum Value") they are recorded as liabilities at the greater of the Minimum Value or fair value. They are marked to market each reporting period through the Consolidated Statement of Operations.

On the respective closing dates of June 28, 2018 and May 12, 2019, respectively, the derivative liabilities related to the Series G Warrants and Series H Warrants were recorded at an aggregate fair value of $1,628,113. Given that the fair value of the derivative liabilities was less than the net proceeds, the remaining proceeds were allocated to Common Stock and additional paid-in-capital.

On March 10, 2023, Arch Therapeutics, Inc. entered into exchange agreements (the "Exchange Agreements") with each holder (the "Warrantholders") of the Company's outstanding Series G Warrants to purchase shares of the Company's common stock, par value $0.001 per share at an exercise price of $1,120.00 per share and the Company's outstanding Series H Warrants to purchase shares of Common Stock at an exercise price of $640.00 per share. Pursuant to the Exchange Agreements, the Warrantholders exchanged 4,252 Series G Warrants for 426 shares of Common Stock and 5,385 Series H Warrants for 1,078 shares of Common Stock.

During the three and nine months ended June 30, 2023, $0 and $1,158,197, respectively was recorded to gain on extinguishment of derivative liability for the exchange of the Series G warrants and Series H warrants and $49,278 was recorded as part of shareholder's deficit. During the three and nine months ended June 30, 2022, $0 and $1,000,000, respectively was recorded to decrease the fair value of derivative liability related to the expired Series F warrants.

Fair Value Measurements Using Significant Unobservable Inputs - Nine Months Ended June 30, 2023

(Level 3)	**Series G**	**Series H**
Beginning balance at September 30, 2022	$ 748,275	$ 459,200
Exchange of warrants into common stock	(13,948)	(35,330)
Extinguishment of derivative liabilities	(734,327)	(423,870)
Ending balance at June 30, 2023	$ -	$ -

Fair Value Measurements Using Significant Unobservable Inputs - Nine Months Ended June 30, 2022

(Level 3)	**Series F**	**Series G**	**Series H**
Beginning balance at September 30, 2021	$ 1,000,000	$ 748,275	$ 459,200
Issuances	-	-	-
Adjustments to estimated fair value	-	-	-
Expiration of derivative liability	(1,000,000)	-	-
Ending balance at June 30, 2022	$ -	$ 748,275	$ 459,200

As of March 10, 2023 and September 30, 2022, the derivative liabilities were valued at the greater of their minimum value or by using the Black Scholes Model with the following assumptions.

As of March 10, 2023, the derivative liabilities are recorded at their minimum value.

	Series G	Series H
Closing price per share of Common Stock	$ 32.80	$ 32.80
Exercise price per share	$ 1,120.00	$ 640.00
Expected volatility	179.41%	141.03%
Risk-free interest rate	4.91%	4.75%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	0.24	1.31

As of September 30, 2022, the derivative liabilities are recorded at their minimum value.

	Series G	**Series H**
Closing price per share of Common Stock	$ 30.72	$ 30.72
Exercise price per share	$ 1,120.00	$ 640.00
Expected volatility	132.97%	122.50%
Risk-free interest rate	4.05%	4.14%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	0.69	1.57

9. OCTOBER 2019 REGISTERED DIRECT OFFERING

On October 16, 2019, the Company entered into a Securities Purchase Agreement *(the* "*October 2019 SPA*"*)* with seven accredited investors (collectively, the "*October 2019 Investors*") providing for the issuance and sale by the Company to the 2019 Investors of an aggregate of 8,929 units at a purchase price of $280.00 per unit in a registered offering ("*October 2019 Financing*"). The securities comprising the units sold in the October 2019 Financing were issued under the Shelf Registration Statement, and consisted of a share of Common Stock, a warrant to purchase one share of Common Stock at an exercise price of $352.00 per share ("*Series I Warrant*") at any time prior to the fifth anniversary of the issuance date of the Series I Warrant subject to certain restrictions on exercise and the shares issuable upon exercise of the Series I Warrants (collectively, the "*October 2019 Warrant Shares*"). As of October 18, 2019, the Company recorded the 8,929 shares as Common Stock. Pursuant to the Engagement Agreement (as defined below), the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 670 shares (the "Placement Agent Warrants"). The 2019 Placement Agent Warrants have substantially the same terms as the Series I Warrants, except that the exercise price of the Placement Agent Warrants is $350.00 per share and the term of the Placement Agent Warrants is five years.

The gross proceeds to the Company from the October 2019 Financing, which were received as of October 18, 2019, were approximately $2.5 million before deducting financing costs of approximately $333,000 which includes approximately $158,000 of placement fees. The number of shares of the Company's Common Stock into which each of the Series I Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series I Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

The Company engaged H.C. Wainwright as its exclusive institutional investor placement agent (the "*Placement Agent*") in connection with the October 2019 SPA pursuant to an engagement agreement dated as of October 10, 2019 (the "*2019 Engagement Agreement*"). In consideration for the services provided by the Placement Agent, the Placement Agent was entitled to receive cash fees ranging from 6.0% to 8.2% of the gross proceeds received by the Company, as well as reimbursement for all reasonable expenses incurred by it in connection with its engagement. The Company received gross proceeds of approximately $2.5 million in the aggregate, resulting in a fee of approximately $158,000.

During the three and nine months ended June 30, 2023 and 2022, no Series I Warrants or Placement Agent Warrants were exercised. As of June 30, 2023, up to 8,929 and 670 shares may be acquired upon the exercise of the Series I Warrants and Placement Agent Warrants, respectively.

Equity Value of Warrants

The Company accounted for the Series I Warrants and the Placement Agent Warrants relating to the aforementioned October 2019 Financing in accordance with ASC 815-40. Because the Series I Warrants and the Placement Agent Warrants are indexed to the Company's Common Stock, they are classified within stockholders' deficit in the accompanying consolidated financial statements.

10. 2021 REGISTERED DIRECT OFFERING

On February 11, 2021, the Company entered into a Securities Purchase Agreement (the "*2021 SPA*") with certain institutional and accredited investors (collectively, "*2021 Investors*") providing for the issuance and sale by the Company to the 2021 Investors of an aggregate of 26,954 shares (the "Shares") of the Company's Common Stock, and warrants (the "*Series K Warrants*") to purchase an aggregate of 20,215 shares (the "*Warrant Shares*") of Common Stock, at a combined offering price of $256.00 per share (the "*2021 Financing*"). The Series K Warrants have an exercise price of $272.00 per share and are exercisable for a period of 5.5 years. The aggregate gross proceeds for the sale of the Shares and Series K Warrants were approximately $6.9 million, before deducting the Placement Agent's fees and expenses and other offering expenses payable by the Company, of approximately $700,000. Pursuant to an engagement agreement dated as of February 8, 2021 (the "*2021 Engagement Agreement*"), by and between the Company and the Placement Agent, the Company agreed to pay the Placement Agent cash fees equal to (i) 7.5% of the gross proceeds received by the Company from certain investors in the 2021 Financing, and (ii) 6.0% of the gross proceeds received by the Company from certain investors that had pre-existing relationships with the Company. In addition, the Placement Agent received a one-time non-accountable expense fee of $10,000, up to $50,000 for fees and expenses of legal counsel and other out-of-pocket expenses and $10,000 for clearing expenses. Pursuant to the 2021 Engagement Agreement, the Company also agreed to issue to the Placement Agent, or its designees, warrants to purchase up to 7.5% of the aggregate number of Shares sold to the 2021 Investors, or warrants to purchase up to 2,022 shares (the "2021 *Placement Agent Warrants*") of the Company's Common Stock. The 2021 Placement Agent 2 Warrants have substantially the same terms as the Series K Warrants, except that the exercise price of the 2021 Placement Agent Warrants is $320.00 per share. The 2021 Engagement Agreement contained indemnity and other customary provisions for transactions of this nature.

The 2021 SPA contained certain restrictions on the Company's ability to conduct subsequent sales of the Company's equity securities. In particular, we were prohibited from entering into or effecting a Variable Rate Transaction (as defined in the 2021 SPA) until February 11, 2022; provided, however, the Company may enter into and effect an at-the-market offering facility with the Placement Agent.

The number of shares of the Company's Common Stock into which each of the Series K Warrants is exercisable and the exercise price therefore are subject to adjustment, as set forth in the Series K Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

During the three and nine months ended June 30, 2023, no Series K Warrants or Placement Agent 2 Warrants were exercised. As of June 30, 2023, up to 20,215 and 2,022 shares may be acquired upon the exercise of the Series K Warrants and Placement Agent Warrants, respectively.

Common Stock

On February 17, 2021, the Closing Date of the 2021 Financing, the Company issued 26,954 shares of Common Stock.

Equity Value of Warrants

The Company accounted for the Series K Warrants and the Placement Agent 2 Warrants relating to the aforementioned February 2021 Registered Direct Offering in accordance with ASC 815-40, *Derivatives and Hedging*. Because the Series K Warrants and the Placement Agent 2 Warrants are indexed to the Company's stock, they are classified within stockholders' deficit in the accompanying consolidated financial statements.

11. 2022 CONVERTIBLE NOTE OFFERING, SECOND NOTES OFFERING, AND THIRD NOTES OFFERING

On July 7, 2022, the Company announced that it had entered into a Securities Purchase Agreement (the "2022 SPA") with certain institutional and accredited individual investors (collectively, the "2022 Investors") providing for the issuance and sale by the Company to the 2022 Investors of (i) Senior Secured Convertible Promissory Notes (each a "2022 Note" and collectively, the "2022 Notes") in the aggregate principal amount of $4.23 million, which includes an aggregate $0.705 million original issue discount in respect of the 2022 Notes; (ii) warrants (the "2022 Warrants"), to purchase an aggregate of 53,195 shares (the "2022 Warrant Shares") of Common Stock; and (iii) 7,979 shares of Common Stock (the "2022 Inducement Shares") equal to 15% of the principal amount of the 2022 Notes divided by the closing price of the Common Stock immediately prior to the Closing Date (as defined below). The 2022 Notes, 2022 Warrants and 2022 Inducement Shares were issued as part of a convertible note offering authorized by the Company's board of directors (the "2022 Convertible Note Offering"). The aggregate gross proceeds for the sale of the 2022 Notes, 2022 Warrants and 2022 Inducement Shares was approximately $3.5 million, before deducting debt issuance costs of $775,000 consisting of fair value of the placement agent's warrants of approximately $220,000 and other estimated fees and offering expenses payable by the Company of approximately $555,000. The closing of the sales of these securities under the 2022 SPA occurred on July 6, 2022 (the "2022 Closing Date").

On January 18, 2023, the Company entered into Amendment No. 1 to the 2022 SPA (the "Amendment" and, together with the 2022 SPA, the "Amended 2022 SPA"), with certain Investors in connection with the Second Closing of the 2022 Convertible Note Offering for the issuance and sale by the Company to such Investors of an aggregate of (i) Unsecured Convertible Promissory Notes (each a "Second Note" and collectively, the "Second Notes") in the aggregate principal amount of $636,000, which includes an aggregate $106,000 original issue discount in respect of the Second Notes; (ii) warrants (the "Second Warrants") to purchase an aggregate of 15,996 shares (the "Second Warrant Shares") of Common Stock; and (iii) 1,200 shares of Common Stock (the "Second Inducement Shares"). The aggregate gross proceeds for the sale of the Second Notes, Second Warrants and Second Inducement Shares was approximately $530,000, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company of approximately $15,000. The second closing of the sales of these securities under the Amended 2022 SPA occurred on January 18, 2023 (the "Second Closing Date").

On May 15, 2023, the Company entered into Amendment No. 2 to the 2022 SPA related to the 2022 Convertible Note Offering (the "Second Amendment" and, together with the Amendment and the 2022 SPA, the "Second Amended 2022 SPA"), with an Investor in connection with the third closing of the 2022 Convertible Note Offering for the issuance and sale by the Company to an Investor of an aggregate of (i) Unsecured Convertible Promissory Notes (each a "Third Note" and collectively, the "Third Notes") in the aggregate principal amount of $702,720, which includes an aggregate $214,720 original issue discount in respect of the Third Notes; (ii) warrants (the "Third Warrants") to purchase an aggregate of 17,675 shares (the "Third Warrant Shares") of Common Stock; and (iii) 1,326 shares of Common Stock (the "Third Inducement Shares"). The aggregate gross proceeds for the sale of the Third Notes, Third Warrants and Third Inducement Shares was approximately $488,000, before deducting any estimated fees and offering expenses payable by the Company. The Company did not engage a placement agent in connection with the issuance of the Third Notes, Third Warrants, and Third Inducement Shares. The third closing of the sales of these securities under the Amended SPA occurred on May 15, 2023 (the "Third Closing Date").The 2022 Notes, the Second Notes and the Third Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the Closing Date until the 2022 Notes, Second Notes and Third Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the 2022 Notes, Second Notes and Third Notes. Any amount of principal or interest on the 2022 Notes, the Second Notes and Third Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full.

The 2022 Notes, the Second Notes and the Third Notes are convertible into shares of Common Stock at the option of each holder of the 2022 Notes, the Second Notes, and the Third Notes from the date of issuance at $73.12 (the "Conversion Price") through the later of (i) January 6, 2024 (the "Maturity Date") or (ii) the date of payment of the Default Amount (as defined in the 2022 Notes); provided, however, certain 2022 Notes, Second Notes and Third Notes include a provision preventing such conversion if, as a result, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than 4.99% or 9.99% of the Common Stock (as applicable, the "Ownership Limitation") immediately after giving effect to the Conversion; and provided further, the holder, upon notice to us, may increase or decrease the Ownership Limitation; (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The Conversion Price is subject to adjustment as set forth in the 2022 Notes, Second Notes, and Third Notes.

The 2022 Notes, Second Notes and Third Notes contain customary events of default, which include, among other things, (i) the Company's failure to pay when due any principal or interest payment under the 2022 Notes, Second Notes, and Third Notes; (ii) our insolvency; (iii) delisting of the Company's Common Stock; (iv) the Company's breach of any material covenant or other material term or condition under the 2022 Notes, Second Notes and/or Third Notes; and (v) the Company's breach of any representations or warranties under the 2022 Notes, Second Notes and Third Notes which cannot be cured within five (5) days. Further, events of default under the 2022 Notes, Second Notes and Third Notes also include (i) the unavailability of Rule 144 on or after January 6, 2023; (ii) our failure to deliver the shares of Common Stock to the 2022 Notes, Second Notes, and/or Third Notes holder upon exercise by such holder of its conversion rights under the 2022 Notes, Second Notes, and/or Third Notes; (iii) our loss of the "bid" price for its Common Stock and/or a market and such loss is not cured during the specified cure periods; and (iv) our failure to complete an uplisting of our Common Stock to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American by August 31, 2023 (as amended) (an "Uplist Transaction").

The 2022 Warrants, Second Warrants and Third Warrants (i) have an exercise price of $79.52 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such 2022 Warrants, the Second Warrants and the Third Warrants if, as a result of the exercise of the 2022 Warrants, Second Warrants, and/or Third Warrants , the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. The holder, upon notice to us, may increase or decrease the Ownership Limitation; provided that (i) the Ownership Limitation may only be increased to a maximum of 9.99% of our Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The number of shares of Common Stock into which each of the 2022 Warrants, Second Warrants, and Third Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the 2022 Warrants, Second Warrants, and Third Warrants, including standard antidilution provisions, and adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In the event of a Fundamental Transaction (as defined in the 2022 Warrants, Second Warrants, and Third Warrants) holders of the 2022 Warrants, Second Warrants, and Third Warrants would be entitled to receive alternate consideration in connection with such Fundamental Transaction, but only to the extent that holders of our Common Stock were entitled to receive the same. Moreover, as long as the 2022 Notes, Second Notes, and Third Notes, and 2022 Warrants, Second Warrants, and Third Warrants remaining outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the 2022 Notes, Second Notes, and Third Notes, and the 2022 Warrants, Second Warrants, and Third Warrants of such more favorable terms, and to use best efforts to effect such terms in the 2022 Notes, Second Notes, and Third Notes, and the 2022 Warrants, Second Warrants, and Third Warrants. Finally, because of the Company's net loss position, the shares underlying the 2022 Notes, Second Notes, and Third Notes on an as converted basis are excluded from the calculation of basic and fully diluted earnings per share. Similarly, because of the Company's net loss position, there was no impact on the calculation of basic and fully diluted earnings per share related to the classification of the 2022 Warrants, Second Warrants, and Third Warrants as participating securities.

The Company retained a placement agent in connection with the private placement of $2.4 million of the 2022 Notes to the institutional investors. The Company paid the 2022 Placement Agent 10% of the gross proceeds received from certain institutional investors, or $240,000 and we also reimbursed the 2022 Placement Agent approximately $58,000 for non-accountable banking fees, legal fees and other expenses. In addition, we issued 2022 Placement Agent Warrants to purchase an aggregate of 3,939 shares of Common Stock. An additional $1.1 million was raised in connection with the placement of the private placement notes, which included certain accredited investors some of which were Board members and executive officers of the Company. Board member, Laurence Hicks, and executive officers, Terrence W. Norchi and Michael S. Abrams, invested in the 2022 Notes. The investment made in the 2022 Notes made by the Board member and executive officers totaled $80,000.

The Company's agreement with the 2022 Placement Agent was still effective at the time of the private placement of $0.5 million of the Second Notes to certain institutional investors. Per the terms of a termination agreement dated February 21, 2023 by and between the Company and the 2022 Placement Agent (the "Placement Agent Termination Agreement"), the Company owes the 2022 Placement Agent 10% of the gross proceeds received from certain institutional investors, or $50,000, and, such amount was deferred until the Company completes an additional financing with gross proceeds of at least $1 million. In addition, per the Placement Agent Termination Agreement, we agreed to issue 2022 Placement Agent Warrants to purchase an aggregate of 821 shares of Common Stock.

In addition, as a part of the 2022 Convertible Note Offering, certain holders of the Company's 10% Series 2 Convertible Notes agreed to exchange their Series 2 Notes for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "Exchanged Notes"). The Exchanged Notes are convertible into 9,571 shares of Common Stock at a conversion price of $73.12. The holders of the Exchanged Notes did not receive warrants or inducement shares. In connection with the issuance of the Exchanged Notes, the holders of the Series 2 Notes that participated in the exchange, entered into a subordination agreement on July 6, 2022 (the "Closing Date") to subordinate their rights in respect of the Exchanged Notes to the rights of the Investors in respect of the 2022 Notes. As of July 7, 2022, approximately $600,000 of the Series 2 Notes and accrued interest of approximately $100,000 were included in the exchange.

Further, in connection with the 2022 Convertible Note Offering, we initially were required to complete an Uplist Transaction by February 15, 2023 under the terms of the 2022 Notes. If we are unable to complete or secure an extension to the Uplist Transaction deadline, then the 2022 Notes, Second Notes, and Third Notes will become immediately due and payable and we will be obligated to pay to each holder of the 2022 Notes, Second Notes, and Third Notes an amount equal to 125%, multiplied by the sum of the outstanding principal amount of the 2022 Notes, Second Notes, and Third Notes plus any accrued and unpaid interest on the unpaid principal amount of the 2022 Notes, Second Notes, and Third Notes to the date of payment, plus any default interest and any other amounts owed to the holder, payable in cash or shares of Common Stock. The Company has secured waivers from all required holders of the 2022 Notes, Second Notes, and Third Notes to extend the deadline to complete an uplist from (i) February 15, 2023 to March 15, 2023, (ii) March 15, 2023 to April 15, 2023, (iii) April 15, 2023 to May 15, 2023, (iv) May 15, 2023 to June 15, 2023, (v) June 15, 2023 to July 1, 2023, (vi) July 1, 2023 to July 31, 2023 and (vii) July 31, 2023 to August 31, 2023. No consideration was paid by the Company in connection with any of the Uplist Transaction deadline extensions.

On March 10, 2023, the Company entered into an amendment ("Amendment No. 2 to the First Notes") with the required holders of the Company's outstanding 2022 Notes issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On March 10, 2023, the Company also entered into an amendment ("Amendment No. 2 to the Second Notes" and, together with Amendment No. 2 to the First Notes, "Amendment No. 2 to the 2022 Notes") with each of the required holders of Company's outstanding Second Notes issued in connection with a private placement financing the Company completed on January 18, 2023.

Under Amendment No. 2 to the 2022 Notes, the following amendments to the 2022 Notes, and Second Notes will be effective at the moment in time immediately preceding the consummation of the offering in connection with the uplist of the Common Stock to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist Transaction"). If a holder of the 2022 Notes and/or the Second Notes elects to participate in the Uplist Transaction (each, a "Participating Holder") for an amount equal to no less than 50% of the Participating Holder's original investment amount in the 2022 Convertible Note Offering, such holder will be entitled to repayment of the principal amount of their 2022 Notes and/or Second Notes upon closing of the Uplist Transaction. In addition, the Company will issue to each Participating Holder a new convertible promissory note equal to the product of 2.4 and the sum of any prepayment premiums and total interest payable on such Participating Holder's 2022 Notes and/or Second Notes (the "2023 Notes"). The 2023 Notes will have a maturity date of July 6, 2024 and will be on substantially the same terms as the Second Notes. For non-Participating Holders (each, a "Non-Participating Holder"), the maturity date of the 2022 Notes and/or Second Notes held by such Non-Participating Holder will be extended to July 6, 2024. Further, each Non-Participating Holder will waive their right to demand repayment of any portion of the outstanding balance of such holder's 2022 Notes and Second Notes upon an Uplist Transaction. Notwithstanding the foregoing, if the registration statement filed in connection with the Uplist Transaction is not declared effective by 11:59 P.M. (EST) on June 15, 2023 (the "Amendment No. 2 Termination Date"), Amendment No. 2 to the 2022 Notes will automatically terminate and shall be of no further force or effect without any further action by the Company or the Requisite Holders, provided, that the Amendment No. 2 Termination Date may be extended by the written approval of the Company and required holders of the 2022 Notes, Second Notes and Third Notes which purchased at least 50% plus $1.00 of the 2022 Notes, Second Notes, and Third Notes based on the initial principal amounts thereunder (the "Requisite Holders"). Amendment No. 2 to the 2022 Notes was superseded by Amendment No. 8 to the 2022 Notes, Amendment No. 8 to the Second Notes and Amendment No. 3 to the Third Notes, and therefore, it is of no further force or effect.

During the three months ended June 30, 2023, the Company recorded interest expense on the 2022 Notes, the Second Notes, and the Third Notes of approximately $784,000 consisting of accrued interest of approximately $150,000 and accretion of original issue debt discount and issuance costs of approximately $634,000. During the nine months ended June 30, 2023, the Company recorded interest expense on the 2022 Notes, the Second Notes, and the Third Notes of approximately $1,893,000 consisting of accrued interest of approximately $413,000 and accretion of original issue debt discount and issuance costs of approximately $1,480,000.

Allocation of Proceeds

The Company accounted for the 2022 Notes, Second Notes, and Third Notes, and the 2022 Warrants, the Second Warrants, and the Third Warrants, and the 2022 Inducement Shares, Second Inducement Shares and the Third Inducement Shares in accordance with ASC 470-20-25-2 "Debt" which states that the allocation of the proceeds from the financing shall be based on the relative fair values of the securities issued at the time of the issuance. The 2022 Inducement Shares, the Second Inducement Shares, and the Third Inducement Shares and the 2022 Warrants, the Second Warrants, and the Third Warrants which are indexed to the Company's stock, are classified within stockholders' deficit in the accompanying consolidated financial statements. The allocated value of the 2022 Inducement Shares and the 2022 Warrants are $314,523 and $1,470,133, respectively. The allocated value of the Second Inducement Shares and the Second Warrants are $25,840 and $256,439, respectively. The allocated value of the Third Inducement Shares and the Third Warrants are $18,394 and $164,136, respectively. The allocated value of the 2022 Notes of $1,740,344 are allocated as short-term liabilities in the accompanying consolidated financial statements. The allocated value of the Second Notes of $247,721 are allocated as short-term liabilities in the accompanying consolidated financial statements. The allocated value of the Third Notes of $305,470 is allocated as short-term liabilities in the accompanying consolidated financial statements The fair value of the 2022 Placement Agent Warrants and the Second Placement Agent Warrants of $219,894 and $28,093, respectively, are being accounted for as debt issuance costs and are classified within stockholders' deficit in the accompanying consolidated financial statements. As of June 30, 2023 and September 30, 2022, the net carrying amount of the 2022 Notes was $2,945,448 and $1,662,492, respectively, with unamortized debt discount and issuance costs of $1,284,552 and $2,567,507, respectively. Effective September 30, 2022, the Company reclassified the carrying amount of the Exchanged Notes of $699,781 (see Note 12) that were previously included in 2022 Notes payable to Unsecured convertible notes. After the reclassification, the Unsecured convertible notes included both the Second Notes and the Exchanged Notes. As of June 30, 2023, the net carrying amount of the Second Notes was $345,845 with unamortized debt discount and issuance costs of $290,155, all of which is included in Unsecured convertible notes. In addition, as of June 30, 2023, the net carrying amount of the Third Notes was $355,992 with unamortized debt discount and issuance costs of $346,728, all of which is included in Unsecured convertible notes.

The 2022 Warrants and the 2022 Placement Agent Warrants were valued as of July 6, 2022 using the Black Scholes Model with the following assumptions:

	2022 Warrants	2022 Placement Agent Warrants
Closing price per share of Common Stock	$ 79.84	$ 79.84
Exercise price per share	$ 79.52	$ 80.48
Expected volatility	88.44%	88.44%
Risk-free interest rate	2.96%	2.96%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	5.0	5.0

The Second Warrants and the Second Placement Agent Warrants were valued as of January 18, 2023 using the Black Scholes Model with the following assumptions:

	Second Warrants	Second Placement Agent Warrants
Closing price per share of Common Stock	$ 46.08	$ 46.08
Exercise price per share	$ 79.52	$ 80.48
Expected volatility	111.31%	111.31%
Risk-free interest rate	3.43%	3.43%
Dividend yield	-	-
Remaining expected term of underlying securities (years)	5.0	5.0

The Third Warrants were valued as of May 15, 2023 using the Black Scholes Model with the following assumptions:

	Third Warrants
Closing price per share of Common Stock	$ 22.16
Exercise price per share	$ 79.52
Expected volatility	114.33%
Risk-free interest rate	3.46%
Dividend yield	-
Remaining expected term of underlying securities (years)	5.0

12. SERIES CONVERTIBLE NOTES

On June 4, 2020 and November 6, 2020, the Company issued unsecured 10% Series 1 Convertible Notes ("Series 1 Notes") and Series 2 Convertible Notes ("Series 2 Notes", and collectively with the Series 1 Notes, the "Series Convertible Notes") in the aggregate principal amount of $550,000 and $1,050,000, respectively. The maturity dates of the Series 1 Notes and Series 2 Notes are June 30, 2023 and November 30, 2023, respectively. On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes. The Series Convertible Notes provide, among other things, for (i) a term of approximately three years; (ii) the Company's ability to prepay the Series Convertible Notes, in whole or in part, at any time; (iii) the automatic conversion of the Series Convertible Notes upon a Change of Control (all capitalized terms not otherwise defined to have the meaning ascribed to such terms of the Series Convertible Notes) into shares of the Company's Common Stock, at a per share price of $432.00 and $400.00 (the "Conversion Price") for the Series 1 Notes and Series 2 Notes, respectively; (iv) the ability of the holders of the Series Convertible Notes (each a "Holder", and together, the "Holders") to convert the principal of the Series Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price; (v) the Company's ability to convert all Note Obligations outstanding upon a Qualified Equity Financing into shares of Common Stock at the respective Conversion Price; (vi) the Company's ability to convert the principal of the Series Convertible Notes, along with accrued interest, in whole or in part, into shares of Common Stock at the respective Conversion Price in the event the volume weighted average price ("VWAP") of the Common Stock equals or exceeds $512.00 per share for at least fifteen consecutive Trading Days; (vii) the Company's ability to convert all outstanding Note Obligations into shares of Common Stock at the respective Conversion Price (an "In Kind Note Repayment") in lieu of repaying the Note Obligations outstanding on the Maturity Date, provided, however, that in the case of an In-Kind Note Repayment, the outstanding Note Obligations will be calculated by increasing by thirty-five percent the aggregate sum of the unpaid Principal Amount held by each Holder and the accrued interest at a rate of ten percent per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent of the amount that is converted or prepaid. As consideration for agreeing to subordinate to the 2022 Notes, the premium applicable in connection with an In-Kind Note Repayment at maturity was increased from thirty-five percent to sixty percent. As consideration for agreeing to provide for an In-Kind Note Repayment upon the earlier of i) maturity or ii) the completion of an Uplist Transaction, the premium applicable in connection with an In-Kind Note Repayment at either maturity or simultaneous with an Uplist Transaction was further increased from sixty percent to three hundred and fifty percent.

As described in Note 11 above, as a part of the 2022 Convertible Note Offering, certain holders of the Series 2 Notes agreed to exchange their Series 2 Notes with an aggregate principal amount of $600,000 and accrued interest of approximately $100,000 for promissory notes of the Company on substantially similar terms to those of the 2022 Notes (the "Exchanged Notes"). As of July 6, 2022, $699,781 of principal and accrued interest of the Series 2 notes was exchanged for the Exchanged Notes.

On March 10, 2023, the Company entered into an amendment (the "Series 2 Note Amendment" and, together with the Series 1 Amendment, the "Series Note Amendments") with each of the holders of the Company's outstanding Series 2 Convertible Notes (as amended, the "Series 2 Notes" and, together with the Series 1 Notes, the "Series Convertible Notes"). Pursuant to the Series Note Amendments, the Company can elect to convert the principal and accrued interest under the Series Convertible Notes (the "Series Note Obligations") at or after the effective time of the Uplisting Transaction, or the maturity date. In the event the Company exercises such option, the Series Note Obligations will be deemed to equal the product of 4.5 (which was previously 1.6 prior to the Series Note Amendments) and the outstanding Series Note Obligations. Notwithstanding the foregoing, if the registration statement filed in connection with the Uplist Transaction is not declared effective by 11:59 P.M. (EST) on or before the Uplisting Transaction deadline under the 2022 Notes and Second Notes, which was originally February 15, 2023, or such later extended date as provided for therein (the "Series Note Amendments Termination Date"), the Series Note Amendments will automatically terminate without any further action by the Company or the holders of the Series Convertible Notes. The Series Note Amendments Termination Date will be automatically extended upon any extension of the Uplisting Transaction deadline under the 2022 Notes, Second Notes, and Third Notes. As previously discussed herein, the deadline to complete the Uplist Transaction was extended on multiple previous occasions. As of July 31, 2023 the Uplist Transaction deadline under the 2022 Notes, Second Notes, and Third Notes is August 31, 2023. No consideration was paid by the Company in connection with any of the extensions of the Uplisting Transaction deadline under the 2022 Notes, Second Notes, and/or Third Notes.

During the three months ended June 30, 2023 and 2022, the Company recorded interest expense on the Series Convertible Notes of approximately $25,000 and $40,000, respectively. During the nine months ended June 30, 2023 and 2022, the Company recorded interest expense on the Series Convertible Notes of approximately $75,000 and $120,000, respectively.

13. RISKS AND UNCERTAINTIES - COVID-19 AND GEOPOLITICAL CONFLICTS

The Company sources its materials and services for its products and product candidates from facilities in areas impacted or which may be impacted by the outbreak of the COVID-19 or geopolitical conflicts. The Company's ability to obtain future inventory may be impacted, therefore potentially affecting the Company's future revenue stream. In addition, the Company has historically and principally funded its operations through debt borrowings, the issuance of convertible debt, and the issuance of units consisting of Common Stock and warrants which may also be impacted by economic conditions beyond the Company's control as well as uncertainties resulting from geopolitical conflicts, including the recent war in Ukraine. The extent to which the COVID-19 and recent events in Ukraine will impact the global economy and the Company is uncertain and cannot be reasonably measured.

14. SHAREHOLDER ADVANCES AND PREFUNDINGS RELATED TO THE ANTICIPATED BRIDGE FINANCING

Through May 12, 2023, the Company raised $538,000 in the form of shareholder advances from two different investors to support operations in advance of the Company's prospective Uplisting Transaction. On May 15, 2023, $488,000 of these shareholder advances, which were contributed by a single investor, were converted to an Unsecured convertible note (the "Third Note") in connection with the Third Closing of the 2022 Convertible Note Offering (see Notes 11 and 15). The remaining $50,000 that was raised by the Company in the form of shareholder advances was repaid per the agreed terms on July 7, 2023 for $60,000.

On May 18, 2023 and May 31, 2023, the Company raised $340,000 and $350,015 from a shareholder and a third-party investor, respectively, to support operations in advance of the Company's anticipated closing of the Bridge Offering (as defined below, see Note 15). On July 7, 2023, the amount prefunded by the current shareholder was included in the first closing of the Bridge Offering. The amount prefunded by the third party investor is expected to be included in a subsequent closing of the Bridge Offering.

15. SUBSEQUENT EVENTS

On July 1, 2023, the "Company" entered into an amendment ("Amendment No. 7 to the First Notes") with the holders of the Company's outstanding 2022 Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, and June 15, 2023, issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 7 to the Second Notes") with the holders of the Company's outstanding Second Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, and June 15, 2023, issued in connection with a private placement financing the Company completed on January 18, 2023 (the "Second Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 2 to the Third Notes and, together with Amendment No. 7 to the First Notes and Amendment No. 7 to the Second Notes, the "Amendments to the 2022 Notes") with the holders of the Company's outstanding Third Notes, as amended on June 15, 2023, issued in connection with a private placement financing the Company completed on May 15, 2023 (the "Third Closing").

Under the Amendments to the 2022 Notes, the 2022 Notes, Second Notes, and Third Notes were amended to extend the date of the completion of an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (such transaction, an "Uplist Transaction") from July 31, 2023 to August 31, 2023.

As a result of the entry into the Amendments to the 2022 Notes, and pursuant to the terms of the Company's outstanding Exchanged Notes, the Exchanged Notes were automatically amended to extend the date of completion of an Uplist Transaction from July 31, 2023 to August 31, 2023. Also, as a result of the entry into the Amendments to the 2022 Notes, and pursuant to the terms of the Company's outstanding Series 1 Unsecured Convertible Promissory Notes and Series 2 Unsecured Convertible Promissory Notes, each as amended on March 10, 2023, the Series Note Amendments Termination Date set forth under Amendment No. 1 to the Series 1 Unsecured Convertible Promissory Notes and Amendment No. 1 to the Series 2 Unsecured Convertible Promissory Notes was automatically amended to extend from July 31, 2023 to August 31, 2023. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 7, 2023.

On July 7, 2023, the Company announced that it had entered into a Securities Purchase Agreement (the "2023 SPA") with certain institutional and accredited individual investors (collectively, the "Investors") providing for the issuance and sale by the Company to the Investors of an aggregate of (i) 218,656 shares (the "Shares") of common stock, par value $0.001, of the Company (the "Common Stock") at a purchase price of $2.20 per share; (ii) 624,525 warrants (the "Pre-Funded Warrants") at a purchase price of $2.192 per Pre-Funded Warrant, to purchase an aggregate of 624,525 shares of Common Stock (the "Pre-Funded Warrant Shares"); and (iii) 1,686,361 warrants (the "Common Warrants") to purchase an aggregate 1,686,361 shares of Common Stock (the "Common Stock Warrants Shares"). The Shares, Pre-Funded Warrants, and Common Warrants were issued as part of a private placement offering authorized by the Company's board of directors (the "Bridge Offering"). The Company engaged an investment bank in connection with Bridge Offering. Per the terms of that agreement, the Company is obligated to pay the placement agent a fee of 8% of gross proceeds received and issue placement agent warrants to purchase that number of securities equal to 5% of the aggregate number of securities sold in the offering.

Pursuant to the lock-up agreement provided for by the SPA, the Investors agreed that they would either (A) purchase securities, for cash, in an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist Transaction") with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Investor for the Shares, Pre-Funded Warrants and Common Warrants under the SPA or (B) be subject to a lock-up provision not to sell or otherwise transfer any of the Shares, Pre-Funded Warrant Shares or Common Warrant Shares acquired by them in the Bridge Offering until the one-year anniversary of the Closing Date. The aggregate gross proceeds for the sale of the Shares, Pre-Funded Warrants, and Common Warrants will be approximately $1.85 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The closing of the sales of these securities under the SPA occurred on July 7, 2023 (the "Closing Date").

The 2023 SPA also provides additional provisions including: i) certain adjustments that would require the Company to issue additional securities to the Investors if the effective offering price to the public of Common Stock in connection with the next underwritten public offering is less than $32.00 per share; ii) a requirement to register the Shares, Pre-Funded Warrant Shares, and Common Stock Warrant Shares on a subsequent registration statement or statements; and, iii) certain restrictions on the Company's ability to conduct subsequent sales of its equity securities and certain business activities. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 13, 2023.

On July 7, 2023, the Company entered into an amendment ("Amendment No. 8 to the First Notes") with the holders of the Company's outstanding 2022 Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, and July 1, 2023, issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 8 to the Second Notes" with the holders of the Company's outstanding Second Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, and July 1, 2023, issued in connection with a private placement financing the Company completed on January 18, 2023 (the "Second Closing"). On July 1, 2023, the Company also entered into an amendment ("Amendment No. 3 to the Third Notes", and, together with Amendment No. 8 to the First Notes and Amendment No. 8 to the Second Notes, the "Amendments to the 2022 Notes") with the holders of the Company's outstanding Third Notes, as amended on June 15, 2023, and as subsequently amended on July 1, 2023, issued in connection with a private placement financing the Company completed on May 15, 2023 (the "Third Closing").

Under the Amendments to the 2022 Notes, the following amendments to the 2022 Notes, Second Notes, and Third Notes will be simultaneously effective upon the closing of an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist Transaction"). The Specified Percentage (as defined below) of the then outstanding principal amount of the 2022 Notes, Second Notes, and Third Notes shall automatically convert (the "Automatic Conversion") into shares of Common Stock, with the conversion price for purposes of such Automatic Conversion being equal to the lower of (i) the per unit price at which any units (each unit being comprised of one share or share equivalent and accompanying warrants, if any) are sold in the Uplist Transaction or (ii) the price at which warrants issued in the Uplist Transaction are exercisable (but in no event increased above the conversion price in effect immediately prior to the pricing of the Uplist Transaction).

In addition, if the Holder (as defined below) (i) participates in the Uplist Transaction and in the Bridge Offering for a combined (taking into account the Holder's aggregate investment in the Uplist Transaction and the Bridge Offering) amount equal to no less than fifty percent (50%) of the Holder's original purchase price under the 2022 Notes, Second Notes, and Third Notes, and (ii) the Holder's amount of participation in the Uplist Transaction is at least 4.3 times the Holder's amount of participation in the Bridge Offering, then the Holder shall receive a pre-funded warrant (the "Participating Pre-Funded Warrant") to purchase a number of shares of Common Stock equal to the Specified Number (as defined below) times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Participating Pre-Funded Warrant (i) shall have an exercise price of $0.001 per share, (ii) may be exercised on a cashless basis, (iii) shall be exercisable by the Holder at any time commencing on the 90th day after issuance, (iv) may be redeemed by the Company for cash at a redemption price of $6.56 per share underlying the Participating Pre-Funded Warrant with any such redemption made pro rata to all holders of the Participating Pre-Funded Warrants, (v) and shall contain a customary beneficial ownership limitation provision. Additionally, the holder of the Participating Pre-Funded Warrants will agree that, until January 6, 2024, it shall not offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, or announce the intention to otherwise dispose of, the Participating Pre-Funded Warrant.

"Specified Percentage" means the greater of: (i) the percentage specified by the Company by notice to the 2022 Note holders (the "Holders", and each a "Holder") at least five business days prior to the closing of the Uplist Transaction, which percentage shall be the percentage necessary to ensure the applicable Nasdaq requirements regarding the Uplist Transaction are satisfied, and (ii) the percentage specified by the Holder by notice to the Company at least three business days prior to the closing of the Uplist Transaction (which percentage may be different for each 2022 Note, Second Note, and/or Third Note as determined by each Holder thereof); provided, that in no event shall the Specified Percentage for the 2022 Notes, Second Notes, and/or Third Notes (A) exceed twenty five percent (25%) unless otherwise agreed in writing by the Holder, or (B) exceed fifty percent (50%) unless otherwise agreed in writing by the Company.

"Specified Number" means, if the Specified Percentage is 50%, 2.4, which number shall be increased by 1.6% for each percentage point decrease in the Specified Percentage, such increase being compounded iteratively for each percentage point decrease in the Specified Percentage, with the result rounded to two decimal places. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 13, 2023.

Additionally, on July 7, 2023, the Company entered into an amendment (the "Omnibus Amendment to Notes and Warrants") with the Holders of the 2022 Notes, Second Notes, and Third Notes amending the 2022 Notes, Second Notes, and Third Notes and related warrants issued at each of the First Closing, Second Closing, and Third Closing (the "First Warrants", "Second Warrants" and "Third Warrants", respectively, and collectively, the "2022 Warrants"). Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes, Second Notes, Third Notes, and related warrants were amended (i) to modify the Most Favored Nation provisions therein to exclude the Bridge Offering, and (ii) to prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Participating Pre-Funded Warrants received by each Holder, respectively, in connection with the Automatic Conversion. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 13, 2023.

On July 7, 2023 the Company paid $60,000 to a shareholder that had previously advanced the Company $50,000 to support operations. The payment satisfied all remaining obligations in connection with the $538,000 of shareholder advances received by the Company through May 12, 2023. The additional $488,000 was issued as a Third Note (see Note 11).

On July 11, 2023, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is approximately $310,000 and incurs interest at a rate of 7.49%. Per the terms of its agreement with First Insurance Funding, the Company is required to make monthly payments of approximately $32,000 through April 2024.

On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Convertible Notes, and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Convertible Notes. Pursuant to the Series 1 Convertible Notes, the Company can elect to convert the principal and accrued interest under the Series Convertible Notes obligation (the "Series Note Obligations") upon the earlier of the effective time of the Uplisting Transaction, or the maturity date. In the case of an In-Kind Note Repayment, the outstanding Note Obligations will be calculated by increasing by thirty-five percent the aggregate sum of the unpaid Principal Amount held by each Holder and the accrued interest at a rate of ten percent per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent of the amount that is converted or prepaid. As consideration for agreeing to subordinate to the 2022 Notes, the premium applicable in connection with an In-Kind Note Repayment at maturity was increased from thirty-five percent to sixty percent. In the event the Company exercises such option, the Series Note Obligations will be deemed to equal the product of 4.5 (which was previously 1.6 prior to the Series Note Amendments) and the outstanding Series Note Obligations.

On July 18, 2023, the Board of the Directors of the Company executed a unanimous written consent that, among other things, approved, subject to the approval of a majority of the stockholders of the Company, the following: 1) amend the Amended and Restated Articles of Incorporation (the "Articles") to a) increase the number of authorized shares of common stock, par value $0.001 (the "Common Stock") from 12 million to 350 million, b) create 5,000,000 shares of "blank check" preferred stock, and c) approve a reverse split at a ratio of between 1-for-1.5 and 1-for-20 without any proportionate decrease in the number of authorized shares; 2) amend the Bylaws of the Company to a) allow action by written consent of stockholders representing more than 50% of the total number of shares of Common Stock currently issued and outstanding, and b) establish that holders of thirty-three and one-third (33.3333%) of the total number of shares of Common Stock currently issued and outstanding shall constitute a quorum at any meeting of stockholders for the transaction of business, except as otherwise provided by the NRS or by the Articles; and, 3) approve the 2023 Omnibus Equity Incentive Plan with an initial reservation of 56,897 shares, options or other such grants. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on July 24, 2023.

On July 31, 2023, Arch Therapeutics, Inc. (the "Company") entered into an amendment ("Amendment No. 9 to the First Notes") with the holders of the Company's outstanding 2022 Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023 and July 7, 2023 issued in connection with a private placement financing the Company completed on July 6, 2022 (the "First Closing"). On July 31, 2023, the Company also entered into an amendment ("Amendment No. 9 to the Second Notes") with the holders of the Company's outstanding Second Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, and July 7, 2023 issued in connection with a private placement financing the Company completed on January 18, 2023 (the "Second Closing"). On July 31, 2023, the Company also entered into an amendment ("Amendment No. 4 to the Third Notes and, together with Amendment No. 9 to the First Notes and Amendment No. 9 to the Second Notes, the "Amendments to the 2022 Notes") with the holders of the Company's outstanding Third Notes, as amended on June 15, 2023, and as subsequently amended on July 1, 2023 and July 7, 2023 issued in connection with a private placement financing the Company completed on May 15, 2023 (the "Third Closing").

Under the Amendments to the 2022 Notes, the 2022 Notes, Second Notes, and Third Notes were amended to extend the date of the completion of an uplist to any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (such transaction, an "Uplist Transaction") from July 31, 2023 to August 31, 2023.

As a result of the entry into the Amendments to the 2022 Notes, and pursuant to the terms of the Company's outstanding Exchanged Notes, the Exchanged Notes were automatically amended to extend the date of completion of an Uplist Transaction from July 31, 2023 to August 31, 2023. Additional information related to such matters can be found in the Form 8-K filed by the Company with Securities and Exchange Commission on August 4, 2023.

1,030,303 Units (consisting of 1,030,303 Shares of Common Stock and Investor Warrants to Purchase up to 1,030,303Shares of Common Stock)
Up to 1,030,303 Pre-Funded Units (consisting of Pre-Funded Warrants to Purchase up to 1,030,303 Shares of Common Stock and Investor Warrants to Purchase up to 1,030,303 Shares of Common Stock)
Up to 1,030,303 Shares of Common Stock Underlying the Pre-Funded Warrants and
Up to 1,030,303 Shares of Common Stock Underlying the Investor Warrants

ARCH THERAPEUTICS, INC.

PRELIMINARY PROSPECTUS

Sole Book-Running Manager

Dawson James Securities, Inc.

, 2023

Until , 2023 (25 days after the date of this prospectus), all dealers that buy, sell or trade our securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

As used in this Part II, unless the context indicates or otherwise requires, the terms "we", "us", "our", and the "Company" refer to Arch Therapeutics, Inc., a Nevada corporation, and its consolidated subsidiary, and the term "ABS" refers to Arch Biosurgery, Inc., a private Massachusetts corporation that, through a reverse merger acquisition completed on June 26, 2013, or the Merger, has become our wholly owned subsidiary.

Item 13. Other Expenses of Issuance and Distribution.

The estimated expenses payable by us in connection with the offering described in this registration statement (other than the underwriting discount and commissions) will be as follows:

EXPENSE		AMOUNT
SEC/FINRA Expenses	$	9,881
Nasdaq listing and filing fees	$	50,000
Reimbursement to underwriters for expenses	$	150,000
Legal fees and expenses	$	400,000
Accounting fees and expenses	$	60,000
Printing and engraving expenses	$	100,000
Miscellaneous expenses	$	5,119
	$	775,000

Item 14. Indemnification of Directors and Officers.

We have not entered into separate indemnification agreements with our directors and officers. Our amended and restated bylaws provide that we shall indemnify any director or officer to the fullest extent authorized by the laws of the State of Nevada. Our amended and restated bylaws further provide that we shall pay the expenses incurred by an officer or director (acting in his or her capacity as such) in defending any action, suit or proceeding in advance of the final disposition of such action, suit or proceeding, subject to the delivery to us by or on behalf of such director or officer of an undertaking to repay the amount of such expenses if it shall ultimately be determined that he or she is not entitled to be indemnified by us as authorized in our bylaws or otherwise.

The Nevada Revised Statutes provide us with the power to indemnify any of our directors, officers, employees and agents as follows:

- a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, except an action by or in the right of the corporation, by reason of the fact that he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with the action, suit or proceeding if he or she acted in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful;

- a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses, including amounts paid in settlement and attorneys' fees actually and reasonably incurred by him or her in connection with the defense or settlement of the action or suit if he or she acted in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the corporation. Indemnification may not be made for any claim, issue or matter as to which such a person has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which the action or suit was brought or other court of competent jurisdiction determines upon application that in view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper; and

- to the extent that a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding, or in defense of any claim, issue or matter therein, the corporation must indemnify him or her against expenses, including attorneys' fees, actually and reasonably incurred by him or her in connection with the defense.

The Nevada Revised Statutes provide that a corporation may make any discretionary indemnification only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances. The determination must be made:

- by the stockholders of the corporation;

- by the board of directors of the corporation by majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding;

- if a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding so orders, by independent legal counsel in a written opinion;

- if a quorum consisting of directors who were not parties to the action, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion; or

- by court order.

The Nevada Revised Statutes further provide that a corporation may purchase and maintain insurance or make other financial arrangements on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise for any liability asserted against him or her and liability and expenses incurred by him or her in his or her capacity as a director, officer, employee or agent, or arising out of his or her status as such, whether or not the corporation has the authority to indemnify him or her against such liability and expenses. We have secured a directors' and officers' liability insurance policy. We expect that we will continue to maintain such a policy.

Item 15. Recent Sales of Unregistered Securities.

Uplist PIPE

On November 8, 2023, the Company and the PIPE Investors entered into the PIPE SPA, pursuant to which the Company has agreed to issue and sell to the PIPE Investors, and the PIPE Investors have agreed to purchase from the Company, an aggregate of (i) PIPE Pre-Funded Warrants to purchase an aggregate of 1,716,780 PIPE Pre-Funded Warrant Shares and (ii) PIPE Investor Warrants to purchase an aggregate 1,716,780 PIPE Investor Warrant Shares, at a purchase price of $4.124 per PIPE Pre-Funded Warrant to purchase one share of Common Stock and accompanying PIPE Investor Warrant to purchase one share of Common Stock, for aggregate gross proceeds of $7.1 million, before deducting the placement agent's fees and estimated offering expenses, and expected net proceeds of $6.4 million after deducting the placement agent's fees and estimated offering expenses payable by the Company. The PIPE Pre-Funded Warrants, and PIPE Investor Warrants will be issued as part of the Uplist PIPE. The issuance and sale of the PIPE Pre-Funded Warrants, PIPE Investor Warrants, PIPE Placement Agent Warrants, and the shares of Common Stock issuable upon the exercise of the PIPE Warrants and the PIPE Placement Agent Warrants will be issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act. The Company currently intends to use the net proceeds it receives from the Uplist PIPE for product marketing and for general working capital purposes.

The closing of the Uplist PIPE is contingent upon, among other conditions, the registration statement of which the Resale Prospectus forms a part being declared effective by the SEC and the approval of the listing of the Common Stock on Nasdaq, and the closing is expected to occur immediately prior to the pricing of the Primary Offering.

The Company retained DJ, pursuant to a placement agency agreement, dated November 8, 2023, as placement agent in connection with the Uplist PIPE. The Company will pay DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Uplist PIPE (expected to be $566,400), will reimburse DJ for legal and other expenses of up to $150,000 and will issue to DJ, or its designees, PIPE Placement Agent Warrants to purchase an aggregate of 85,839 shares of Common Stock. The PIPE Placement Agent Warrants will be exercisable at any time and from time to time, in whole or in part, during the five-year period commencing upon issuance, at a price per share equal to $5.15625 (which is 125% of the price per Unit sold in the Primary Offering).

PIPE Pre-Funded Warrants

The PIPE Pre-Funded Warrants (i) will have a nominal exercise price of $0.001 per share; (ii) will be exercisable immediately upon issuance; (iii) will be exercisable until all of the PIPE Pre-Funded Warrants are exercised in full; and (iv) will have a provision preventing the exercisability of such PIPE Pre-Funded Warrants if, as a result of the exercise of the PIPE Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the PIPE Pre-Funded Warrants.

PIPE Investor Warrants

The PIPE Investor Warrants (i) will have an exercise price of $4.00 per share; (ii) will have a term of exercise equal to 5 years after their issuance date; (iii) will be exercisable immediately upon issuance; and (iv) will have a provision preventing the exercisability of such PIPE Investor Warrants if, as a result of the exercise of the PIPE Investor Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the PIPE Investor Warrants.

Pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of an Uplist Transaction, which the Primary Offering is intended to be, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

Bridge Offering

Between July 7, 2023 and September 11, 2023, pursuant to the Bridge SPA, among the Company and the Bridge Investors the Company issued and sold to the Bridge Investors an aggregate of (i) 418,051 Bridge Shares; (ii) Bridge Pre-Funded Warrants to purchase an aggregate of 756,871 Bridge Pre-Funded Warrant Shares; and (iii) Common Warrants to purchase an aggregate 2,349,826 Common Warrant Shares, at a purchase price of $2.20 per Bridge Share and accompanying Common Warrant to purchase two shares of Common Stock, and $2.192 per Bridge Pre-Funded Warrant to purchase one share of Common Stock and accompanying Common Warrant to purchase two shares of Common Stock. The Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants were issued as part of the Bridge Offering. The issuance and sale of the Bridge Shares, Bridge Pre-Funded Warrants, Common Warrants, Placement Agent Warrants, and the shares of Common Stock issuable upon the exercise of the Bridge Warrants and Placement Agent Warrants will be issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act.

Pursuant to the Bridge SPA, the Bridge Investors agreed not to sell or otherwise transfer any of the Bridge Shares or Bridge Warrant Shares prior to the one-year anniversary of the Bridge Closing Date. In the event that a Bridge Investor purchases securities in connection with an offering conducted in conjunction with an uplist of the Common Stock to any of, and in compliance with the rules of, the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "**Uplist Transaction**"), which the Primary Offering is intended to be, and/or in the Uplist PIPE, with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate purchase price paid by the Bridge Investor for the Bridge Shares and Bridge Warrants under the Bridge SPA, the one-year lock-up period will no longer apply to the Bridge Shares and Bridge Warrants. The aggregate gross proceeds for the sale of the Bridge Shares, Bridge Pre-Funded Warrants, and Common Warrants was approximately $2.6 million, before deducting the placement agent's fees and other estimated fees and offering expenses payable by the Company. The first closing of the sales of these securities under the Bridge SPA occurred on July 7, 2023.

Under the Bridge SPA, the Company also agreed that upon the closing of a Qualifying Offering, which the Company agreed is the Primary Offering, if the effective Qualifying Offering Price is lower than $32.00 per share, then the Company shall issue True-Up Pre-Funded Warrants, or True-Up Shares in lieu thereof to the extent necessary to cause the Company to meet the listing requirements of the Company's proposed trading market in the Uplist Transaction, in an amount reflecting a reduction in the purchase price paid for the Bridge Shares and Bridge Pre-Funded Warrants that equals the proportion by which the Qualifying Offering Price is less than $32.00. The Company also agreed that the Qualifying Offering Price as a result of this offering is $4.00. Accordingly, at the closing of the Primary Offering, based on the sale of the Units and Pre-Funded Units at an assumed public offering price of $4.125 per Unit and $4.124 per Pre-Funded Unit, which represents the minimum bid price of $4.00 per share under the initial listing requirements of the Nasdaq Capital Market in Nasdaq Listing Rule 5505(a)(1)(A) plus a value of $0.125 attributed to the accompanying Investor Warrant pursuant to published Nasdaq guidance, the Company expects to issue (i) True-Up Pre-Funded Warrants with an exercise price of $0.001 to purchase an aggregate of 5,695,529 shares of Common Stock and (ii) an aggregate of 2,528,812 True-Up Shares to the Bridge Investors. The expected allocation between True-Up Shares and True-Up Pre-Funded Warrants in the previous sentence is only an initial estimate based on indications of interest and is subject to change based on the ultimate ownership of the Bridge Investors after the Uplist PIPE and the Primary Offering. The maximum amount of True-Up Pre-Funded Warrants and True-Up Shares that may be issued, individually and in the aggregate is 8,224,341. The Resale Prospectus currently covers the resale of the True-Up Pre-Funded Warrant Shares and True-Up Shares.

The Company retained DJ as placement agent in connection with the Bridge Offering. The Company paid DJ a cash fee equal to 8.0% of the aggregate gross proceeds of the Bridge Offering and reimbursement of expenses of $50,000. Additionally, on September 7, 2023 the Company issued to DJ, or its designees, Placement Agent Warrants to purchase an aggregate of 55,242 shares of Common Stock. The Placement Agent Warrants are exercisable at any time and from time to time, in whole or in part, until September 7, 2028, at a price per share equal to $2.20 (which will increase to $5.15625 at the closing of the Uplist Transaction, representing 125% of the assumed price per share of Common Stock in the Uplist Transaction, as required by FINRA).

Bridge Pre-Funded Warrants

The Bridge Pre-Funded Warrants (i) have a nominal exercise price of $0.008 per share; (ii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance, (B) 120 days after the closing date of an Uplist Transaction, and (C) the date that a registration statement registering the Bridge Pre-Funded Warrant Shares is declared effective; (iii) are exercisable until all of the Bridge Pre-Funded Warrants are exercised in full; and (iv) have a provision preventing the exercisability of such Bridge Pre-Funded Warrants if, as a result of the exercise of the Bridge Pre-Funded Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Bridge Pre-Funded Warrants.

Common Warrants

The Common Warrants (i) have an exercise price of $8.00 per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) are exercisable after the earlier of (A) the six-month anniversary after the date of issuance and (B) the date that a registration statement registering the Common Warrant Shares is declared effective; (iv) have a provision permitting voluntary adjustments to the exercise price by the Company, subject to the prior written consent of the Common Warrant holder; (v) are automatically exchanged upon the closing of an Uplist Transaction for a new warrant that is identical to the warrants (other than any pre-funded warrants), if any, being issued to investors in such Uplist Transaction, with the number of shares underlying such new warrant being equal to the number of Common Warrant Shares then underlying the Common Warrant multiplied by three and (vi) have a provision preventing the exercisability of such Common Warrants if, as a result of the exercise of the Common Warrants, the holder, together with its affiliates and any other persons whose beneficial ownership of Company Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation immediately after giving effect to the exercise of the Common Warrants. Accordingly, at the closing of the Primary Offering, the Common Warrants will be canceled and exchanged for Exchange Investor Warrants to purchase an aggregate of 7,049,447 shares of Common Stock at an exercise price per share equal to the exercise price per share of the Investor Warrants.

In addition, as noted above, pursuant to the PIPE SPA, the Company has agreed to file no later than sixty (60) days after the closing date of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

2022 Notes Financing

First Notes

On July 6, 2022, we entered into a Securities Purchase Agreement, or the 2022 SPA, with certain institutional and accredited individual investors providing for the issuance and sale of an aggregate of (i) 7,979 First Inducement Shares; (ii) First Notes in the aggregate principal amount of $4.23 million; (iii) First Warrants to purchase up to 53,194 First Warrant Shares; and (iv) First Placement Agent Warrants to purchase up to 3,939 shares of Common Stock.

The First Notes become due and payable on January 6, 2024, or the Maturity Date, and may not be prepaid, in whole or in part, at any time without the written consent of the lead investor, with such prepayment amounts subject to adjustment as a result of certain time-based prepayment premiums set forth in the First Notes; provided, that, the written consent of the lead investor is not required in connection with a prepayment made from the proceeds of an Uplist Transaction. The First Notes bear interest on the unpaid principal balance at a rate equal to ten percent (10%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum accruing from the First Closing Date until the First Notes become due and payable at maturity or upon their conversion, acceleration or by prepayment, and may become due and payable upon the occurrence of an event of default under the First Notes. Any amount of principal or interest on the First Notes which is not paid when due shall bear interest at the rate of the lesser of (i) eighteen percent (18%) per annum or (ii) the maximum amount allowed by law from the due date thereof until payment in full.

The First Notes are convertible into shares of Common Stock at the option of each holder of the First Notes from the date of issuance at the Conversion Price of $73.12 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) through the later of (i) the Maturity Date and (ii) the date of payment of the Default Amount (as defined in the First Note); *provided, however*, certain First Notes include a provision preventing such conversion if, as a result, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than 4.99% of the outstanding shares of the Common Stock, or as applicable, the Ownership Limitation, immediately after giving effect to the Conversion; and *provided further*, the holder, upon notice to us, may increase or decrease the Ownership Limitation;*provided that* (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of the Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The Conversion Price is subject to adjustment as set forth in the First Notes.

The First Notes contain customary events of default, which include, among other things, (i) our failure to pay when due any principal or interest payment under the First Notes; (ii) our insolvency; (iii) delisting of our Common Stock; (iv) our breach of any material covenant or other material term or condition under the First Notes; and (v) our breach of any representations or warranties under the First Notes which cannot be cured within five (5) days. Further, events of default under the First Notes also include (i) the unavailability of Rule 144 on or after six (6) months from the First Closing Date or January 6, 2023; (ii) our failure to deliver the shares of Common Stock to the First Note holder upon exercise by such holder of its conversion rights under the First Notes; (iii) our loss of the "bid" price for its Common Stock and/or a market and such loss is not cured during the specified cure periods; (iv) our failure to complete an Uplist Transaction by March 15, 2023, or such later extended date as provided for therein; (v) upon completion of an Uplist Transaction, our failure to repay the outstanding balance of the First Notes within two days of receipt of a First Note holder's demand for repayment; and (vi) our default on the Uplist Conversion Warrant Exchange Offer Obligation.

The First Warrants (i) have an exercise price of $79.52 (which will automatically change to $4.00 as of the closing of the Uplist PIPE through the operation of the Most Favored Nation Provision) per share; (ii) have a term of exercise equal to 5 years after their issuance date; (iii) became exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such First Warrant if, as a result of the exercise of the First Warrant, the holder, together with its affiliates and any other persons whose beneficial ownership of our Common Stock would be aggregated with the holder's, would be deemed to beneficially own more than the Ownership Limitation. The holder, upon notice to us, may increase or decrease the Ownership Limitation; provided that (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of our Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The number of shares of Common Stock into which each of the First Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the First Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). Pursuant to the Most Favored Nation Provision contained in the First Notes and the First Warrants, as long as the First Notes and First Warrants remain outstanding, upon the issuance of any security in connection with any potential future financing activity on terms more favorable than the existing terms, the Company has an obligation to notify the holders of the First Notes and First Warrants of such more favorable terms, and to use best efforts to effect such terms in the First Notes and First Warrants.

Pursuant to the 2022 Engagement Letter, that we entered into with Maxim, we agreed, among other things, to (i) pay Maxim 10% of the gross proceeds in the First Closing from certain institutional investors, or $240,000, and (ii) issue Maxim, or its designees, warrants to purchase up to 10% of the aggregate number of shares sold to the institutional investors in the First Closing, or warrants to purchase up to 3,939 shares of Common Stock. The First Placement Agent Warrants have substantially the same terms as the First Warrants, except that the exercise price of the First Placement Agent Warrants is $80.48 per share and are not exercisable until six (6) months from the date of issuance. We also reimbursed Maxim approximately $58,000 for non-accountable banking fees, legal fees and other expenses. The First Inducement Shares, First Notes, First Warrants and First Placement Agent Warrants were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act. On February 22, 2023, we terminated the 2022 Engagement Letter with Maxim, in which we agreed, among other things, to pay Maxim a tail fee of up to 2% of the aggregate amounts invested by certain participating holders in the Primary Offering at closing.

Exchange Notes

In connection with the 2022 SPA, on July 6, 2022, we issued certain investor notes (the "**Exchanged Notes**") in the aggregate principal amount of $699,780.93 in the Notes Exchange (as defined below). The Exchanged Notes are convertible into 9,570 shares of Common Stock at a conversion price of $73.12 in exchange for their Series Convertible Notes (the "**Notes Exchange**"). The terms of the Exchanged Notes are substantially similar to those of the First Notes. In connection with the issuance of the Exchanged Notes, the Series Convertible Notes holders entered into a subordination agreement on July 6, 2022 to subordinate their rights in respect of the Exchanged Notes to the rights of the investors in respect of the First Notes.

Second Notes

On January 18, 2023, we entered into an amendment to the 2022 SPA related to the 2022 Private Placement Financing with certain institutional and accredited individual investors in connection with the Second Closing of the 2022 Private Placement Financing providing for the issuance and sale of an aggregate of (i)1,200 Second Inducement Shares; (ii) Second Notes in the aggregate principal amount of $636,000; and (iii) Second Warrants to purchase up to 15,996 Second Warrant Shares at an exercise price of $79.52 per share. The terms of the Second Notes and Second Warrants are substantially similar to those of the First Notes and First Warrants, except that the Second Notes are unsecured. In connection with the Second Closing, we agreed to (i) pay Maxim 10% of the gross proceeds in the Second Closing from the institutional investors, or $50,000, and (ii) issue 2022 Placement Agent Warrants to purchase up to 821 2022 Placement Agent Warrant Shares to Maxim pursuant to the 2022 Engagement Letter. The 2022 Placement Agent Warrants have substantially the same terms as the Second Warrants, except that the exercise price of the 2022 Placement Agent Warrants is $80.48 per share and are not exercisable until six (6) months from the date of issuance. The Second Inducement Shares, Second Notes, Second Warrants and 2022 Placement Agent Warrants were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act.

Third Notes

On May 15, 2023, we entered into an amendment to the 2022 SPA related to the 2022 Private Placement Financing with an Investor in connection with the Third Closing of the 2022 Private Placement Financing providing for the issuance and sale by the Company to an Investor of an aggregate of (i) Third Notes in the aggregate principal amount of $702,720, which includes an aggregate $214,720 original issue discount in respect of the Third Notes; (ii) Third Warrants to purchase an aggregate of 17,675 Third Warrant Shares at an exercise price of $79.52 per share; and (iii) 1,326 Third Inducement Shares. The aggregate gross proceeds for the sale of the Third Notes, Third Warrants, and Third Inducement Shares was approximately $488,000, before deducting any estimated fees and offering expenses payable by the Company. The terms of the Third Notes and Third Warrants are substantially similar to those of the Second Notes and Second Warrants. The Company did not engage a placement agent in connection with the issuance of the Third Notes, Third Warrants, and Third Inducement Shares. The Third Notes, Third Warrants, and Third Inducement Shares were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act. As of October 25, 2023, the outstanding unpaid principal balance including all accrued interest under the 2022 Notes totaled $7,004,722. It is currently anticipated that 50% of the $6,268,501 unpaid principal balance currently outstanding under the 2022 Notes will convert into 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) in connection with the Automatic Conversion.

2022 Note Modifications

On November 8, 2023, the Company entered into Amendment No. 12 to the First Notes with the holders of the Company's outstanding First Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023, issued in connection with the First Closing. On November 8, 2023, the Company also entered into Amendment No. 12 to the Second Notes with the holders of the Company's outstanding Second Notes, as separately amended on February 14, 2023, March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023, issued in connection with the Second Closing. On November 8, 2023, the Company also entered into Amendment No. 7 to the Third Notes with the holders of the Company's outstanding Third Notes, as separately amended on June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023, issued in connection with the Third Closing

Under the Amendments to the 2022 Notes, the date for completion of the Uplist Transaction was extended from October 31, 2023 to November 15, 2023. Additionally, the following amendments to the 2022 Notes will be simultaneously effective upon the closing of the Uplist Transaction. Fifty percent (50%) of the then outstanding principal amount of the 2022 Notes shall automatically convert into Automatic Conversion Shares, with the conversion price for purposes of such Automatic Conversion being $4.00. Upon the Automatic Conversion and to the extent that the beneficial ownership of a Holder would increase over the applicable Ownership Limitation, the Holder will receive 2022 Note Conversion Pre-Funded Warrants in lieu of shares of Common Stock otherwise issuable to the Holder in connection with the Automatic Conversion, which 2022 Note Conversion Pre-Funded Warrants shall have an exercise price of $0.001 per share, may be exercised on a cashless basis, shall be exercisable immediately upon issuance and shall contain a customary beneficial ownership limitation provision.

In addition, upon the Automatic Conversion, the Holder shall receive a Uplist Conversion Warrant to purchase a number of Uplist Conversion Warrant Shares equal to 6.3812 times the dollar amount under the 2022 Notes that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price per share of $4.00 and shall otherwise be identical to the PIPE Investor Warrants. The Company also agreed in the Amendments to the 2022 Notes to file no later than sixty (60) days after the closing of the Primary Offering a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange, on a one-for-one basis, all outstanding PIPE Investor Warrants, 2022 Warrants, Uplist Conversion Warrants and Exchange Investor Warrants for newly issued warrants identical to the Investor Warrants being sold in the Primary Offering, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW."

The Amendments to the 2022 Notes also prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Accordingly, it is currently anticipated that at the closing of the Primary Offering: (i) an aggregate of 783,564 shares of Common Stock (assuming no issuance of 2022 Note Conversion Pre-Funded Warrants) will be issued upon the Automatic Conversion of an aggregate of $3,134,250 of principal amount under the 2022 Notes, representing 50% of the $6,268,501 in principal amount currently outstanding under the 2022 Notes, based on the assumed exercise price of the Investor Warrants being offered as part of the Units and Pre-Funded Units in the Primary Offering of $4.00 per share; and (ii) the Holders will be issued Uplist Conversion Warrants to purchase an aggregate of 20,000,286 shares of Common Stock, representing 6.3812 multiplied by the $3,134,250 of principal amount converted in the Automatic Conversion.

On July 7, 2023, the Company entered the Omnibus Amendment to Notes and Warrants with the Holders of the 2022 Notes, amending the 2022 Notes and the 2022 Warrants issued at each of the First Closing, Second Closing, and Third Closing. Under the Omnibus Amendment to Notes and Warrants, the 2022 Notes and 2022 Warrants were amended (i) to modify the Most Favored Nation provisions therein to exclude the Bridge Offering and (ii) to prohibit the Company from engaging in any capital raising transactions, subject to certain exceptions, until the earlier of (A) July 7, 2027, and (B) the first date on which all Holders hold less than 20% of the original amount of the Participating Pre-Funded Warrants received by each Holder, respectively, in connection with the Automatic Conversion.

Series G and Series H Warrant Exchange

On March 10, 2023, we entered into Exchange Agreements with each of the holders of Series G Warrants and Series H Warrants, pursuant to which we exchanged 4,252 Series G Warrants for 425 shares of Common Stock and 5,385 Series H Warrants for 1,077 shares of Common Stock. The shares of Common Stock were issued in reliance upon an exemption from registration pursuant to Section 3(a)(9) of the Securities Act.

2021 Offering

On February 11, 2021, we entered into a Securities Purchase Agreement, or the 2021 SPA, with certain institutional and accredited investors providing for the issuance and sale of an aggregate of (i) 26,953 shares of our Common Stock (the "**2021 SPA Shares**"); and (ii) Series K Warrants to purchase an aggregate of 20,215 shares of Common Stock, at a combined offering price of $256.00 per share and related Series K Warrant. The Series K Warrants (i) have an exercise price of $272.00 per share; (ii) have a term of exercise equal to 5.5 years after their issuance date; (iii) were exercisable immediately after their issuance; and (iv) have a provision preventing the exercisability of such Series K Warrant if, as a result of the exercise of the Series K Warrant, the holder, together with its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's, would be deemed to beneficially own more the Ownership Limitation (all capitalized terms in this paragraph not otherwise defined to have the meaning ascribed to such terms in the 2021 SPA) immediately after giving effect to the exercise of the Series K Warrant. The holder, upon notice to the Company, may increase or decrease the Ownership Limitation; provided that (i) the Ownership Limitation may only be increased to a maximum of 9.99% of the outstanding shares of the Company's Common Stock; and (ii) any increase in the Ownership Limitation will not become effective until the 61st day after delivery of such waiver notice. The number of shares of the Company's Common Stock into which each of the Series K Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the Series K Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise).

Pursuant to an engagement agreement that we entered into with H.C. Wainwright & Co., or the 2021 Placement Agent, we agreed, among other things, to issue the 2021 Placement Agent, or its designees, warrants to purchase up to 7.5% of the aggregate number of shares sold to investors in the 2021 Private Placement Financing, or warrants to purchase up to 2,022 shares, or the 2021 Placement Agent Warrants. The 2021 Placement Agent Warrants have substantially the same terms as the Series K Warrants, except that the exercise price of the 2021 Placement Agent Warrants is $320.00 per share.

The issuance and sale of the 2021 SPA Shares, Series K Warrants, 2021 Placement Agent Warrants, Exchanged Notes, and the shares of Common Stock issuable upon conversion of the Exchanged Notes and upon the exercise of the Series K Warrants and the 2021 Placement Agent Warrants were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506(b) promulgated under Securities Act.

2020 Offering

On June 4, 2020 and June 22, 2020, we issued Series J Warrants to purchase up to an aggregate of 2,429 shares of Common Stock at an exercise price of $400.00 per share to certain holders of our Series D Warrants as an inducement for those holders to exercise their Series D Warrants. The Series J Warrants were exercisable immediately upon their issuance and, as originally issued, had a term of exercise equal to one year after their issuance date; *however*, on November 6, 2020, the Series J Warrant to purchase up to 2,109 shares of Common Stock was amended to extend the term by an additional eighteen (18) months. The number of shares of our Common Stock into which each of the Series J Warrants were exercisable and the exercise price thereof were subject to adjustment as set forth in the Series J Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In addition, the Series J Warrants provided that they would not be exercisable in the event and to the extent that the exercise thereof would have resulted in the holder of the Series J Warrant, together with any person whose beneficial ownership would have been aggregated with the holder, beneficially owning more than 4.99% of the outstanding shares of our Common Stock; however, the holder could have increased such ownership limitation to 9.99% of the outstanding shares of our Common Stock, in which case the ownership limitation increase would have become effective 61 days after the holder requested such increase. In addition, each Series J Warrant provided the holder with "piggy back" registration rights under certain circumstances. The Series J Warrant and the shares of Common Stock issuable thereunder were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act.

Series 1 and 2 Notes

On June 4, 2020, we issued Series 1 Notes in the aggregate principal amount of $550,000. The Series 1 Notes provide, among other things, for (i) a term of approximately three (3) years; (ii) the Company's ability to prepay the Series 1 Notes, in whole or in part, at any time; (iii) the automatic conversion of the Series 1 Notes upon a Change of Control (all capitalized terms in this paragraph not otherwise defined to have the meaning ascribed to such terms in the Series 1 Notes) into shares of Common Stock at a per share price of $432.00 (the "**Series 1 Conversion Price**"); (iv) the ability of a holder of a Series 1 Note to convert the Series 1 Note and accrued interest, in whole or in part, into shares of Common Stock at the Series 1 Conversion Price (the "**Series 1 Conversion Shares**"); (v) the Company's ability to convert all Series Note Obligations (as defined below) outstanding upon a Qualified Equity Financing into shares of Common Stock at the Series 1 Conversion Price; (vi) the Company's ability to convert the Series 1 Notes and accrued interest, in whole or in part, into shares of Common Stock at the Series 1 Conversion Price in the event the volume weighted average price ("**VWAP**") of the Common Stock equals or exceeds $512.00 per share for at least fifteen (15) consecutive Trading Days; (vii) the Company's ability to convert all outstanding Series Note Obligations into shares of Common Stock at the Series 1 Conversion Price (an "**Series 1 In-Kind Note Repayment**") in lieu of repaying the Series Note Obligations outstanding on the Maturity Date, June 30, 2023; provided, however, that in the case of a Series 1 In-Kind Note Repayment, the outstanding Series Note Obligations will be calculated by increasing by thirty-five percent (35%) the aggregate sum of the unpaid Principal Amount held by each holder and the accrued interest at a rate of ten percent (10%) per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent (10%) of the amount that is converted or prepaid. The Series 1 Notes and Series 1 Conversion Shares were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated under the Securities Act.

On November 6, 2020, we issued Series 2 Notes in the aggregate principal amount of $1,050,000. The Series 2 Notes provide, among other things, for (i) a term of approximately three (3) years; (ii) the Company's ability to prepay the Series 2 Notes, in whole or in part, at any time; (iii) the automatic conversion of the Series 2 Notes upon a Change of Control (all capitalized terms in this paragraph not otherwise defined to have the meaning ascribed to such terms in the Series 2 Notes) into shares of Common Stock, at a per share price of $400.00 (the "**Series 2 Conversion Price**"); (iv) the ability of a holder of a Series 2 Note to convert the Series 2 Note and accrued interest, in whole or in part, into shares of Common Stock at the Series 2 Conversion Price (the "**Series 2 Conversion Shares**"); (v) the Company's ability to convert all Series Note Obligations outstanding upon a Qualified Equity Financing into shares of Common Stock at the Series 2 Conversion Price; (vi) the Company's ability to convert the Series 2 Notes and accrued interest, in whole or in part, into shares of Common Stock at the Series 2 Conversion Price in the event the VWAP of the Common Stock equals or exceeds $512.00 per share for at least fifteen (15) consecutive Trading Days; (vii) the Company's ability to convert all outstanding Series Note Obligations into shares of Common Stock at the Series 2 Conversion Price (an "**Series 2 In-Kind Note Repayment**") in lieu of repaying the Series Note Obligations outstanding on the Maturity Date, November 30, 2023; provided, however, that in the case of a Series 2 In-Kind Note Repayment, the outstanding Series Note Obligations will be calculated by increasing by thirty-five percent (35%) the aggregate sum of the unpaid Principal Amount held by each holder and the accrued interest at a rate of ten percent (10%) per annum, subject to, with respect to any portion of the Principal Amount that is converted or prepaid before the twelve month anniversary of the Issuance Date, a minimum interest payment equal to ten percent (10%) of the amount that is converted or prepaid. The Series 2 Notes and Series 2 Conversion Shares were issued and sold in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated under the Securities Act.

On March 10, 2023, we entered into amendments with the holders of the Series 1 Notes (the "**Series 1 Note Amendment**") and Series 2 Notes (the "**Series 2 Note Amendment**" and, together with the Series 1 Note Amendment, the "**Series Note Amendments**") to modify certain terms as of the moment in time immediately preceding the consummation of the Uplist Transaction (the "**Effective Time**"). Pursuant to the Series Note Amendments, the Company can elect to convert the principal and accrued interest under the Series Convertible Notes (the "**Series Note Obligations**") at or after the Effective Time. In the event the Company exercises this option, the Series Note Obligations will be deemed to equal the product of 4.5 (which was previously 1.6 prior to the Series Note Amendments) (such figure, the "**Conversion Rate**") and the outstanding Note Obligations. Notwithstanding the foregoing, if the registration statement filed in connection with the Uplist Transaction, which the Primary Offering is intended to qualify as, is not declared effective by 11:59 P.M. (EST) on March 15, 2023 or such later extended date as provided for therein (the "**Series Note Amendments Termination Date**"), the Series Note Amendments will automatically terminate without any further action by the Company or the Series Convertible Notes holders. The Series Note Amendments Termination Date will be automatically extended upon any extension of the First Note Amendment Termination Date (as defined in Amendment No. 8 to the 2022 Notes). As a result of Amendment No. 12 to the 2022 Notes, the Series Note Amendments Termination Date was automatically extended from October 31, 2023, to November 15, 2023.

On July 12, 2023, the Company secured countersigned notices of conversion from all remaining holders of the Series 1 Notes and provided instructions to its transfer agent to issue a total of 7,489 shares of Common Stock in full satisfaction of all previously outstanding Series 1 Notes, which had an aggregate of $718,918 of principal and interest outstanding at the time of conversion. As of October 25, 2023, there was $587,959 of principal and accrued interest (through maturity) outstanding under the Series 2 Notes.

Item 16. Exhibits and Financial Statement Schedules

Exhibits

EXHIBIT INDEX

Exhibit No.	Exhibit Title	Filed Herewith	Incorporated By Reference			
			Form	Exhibit No.	File No.	Filing Date
1.1	Form of Underwriting Agreement	X				
1.2*	Form of Warrant Agency Agreement	X				
3.1	Restated Articles of Incorporation of Arch Therapeutics, Inc.		10-Q	3.1	000-54986	07/23/2020
3.2	Amended and Restated Bylaws, as adopted on August 15, 2022		8-K/A	3.1	000-54986	08/17/2022
3.3	Amendment No. 1 to the Amended and Restated Bylaws, as adopted on July 18, 2023		8-K	3.1	000-54986	7/24/2023
4.1	Description of Securities		10-K	4.1	000-54986	12/11/2020
4.2	Form of Investor Warrant	X				
4.3	Form of Pre-Funded Warrant	X				
4.4	Form of Bridge Pre-Funded Warrant		10-Q	4.1	000-54986	8/11/2023
4.5	Form of Bridge Common Warrant		10-Q	4.2	000-54986	8/11/2023
4.6	Form of Bridge Placement Agent Warrant		8-K	4.3	000-54986	09/07/2023
4.7	Form of PIPE Pre-Funded Warrant	X				
4.8	Form of PIPE Investor Warrant	X				
4.9	Form of PIPE Placement Agent Warrant	X				
4.10	Form of True-Up Pre-Funded Warrant	X				
4.11	Form of 2022 Note Conversion Pre-Funded Warrant	X				
4.12	Form of Uplist Conversion Warrant	X				
4.13	Form of Exchange Investor Warrant	X				
5.1	Opinion of McDonald Carano LLP	X				
5.2	Opinion of Lowenstein Sandler LLP	X				
10.1#	Executive Employment Agreement dated June 26, 2013 between Arch Therapeutics, Inc. and Terrence W. Norchi		8-K	10.8	333-178883	6/26/2013
10.2#	First Amendment to Executive Employment Agreement, dated March 23, 2014, by and between Arch Therapeutics, Inc. and Terrence W. Norchi Stock		8-K	10.1	000-54986	3/27/2014
10.3#	Arch Therapeutics, Inc. 2013 Stock Incentive Plan		8-K	10.1	333-178883	6/24/2013

10.4#	Form of Stock Option Award Agreement under Arch Therapeutics, Inc. 2013 Stock Incentive Plan	10-Q	10.13	000-54986	8/14/2013
10.5#	Form of Restricted Stock Unit Award Agreement under Arch Therapeutics, Inc. 2013 Stock Incentive Plan	10-Q	10.14	000-54986	8/14/2013
10.6#	Form of Restricted Stock Bonus Award Agreement under Arch Therapeutics, Inc. 2013 Stock Incentive Plan	10-Q	10.15	000-54986	8/14/2013
10.7#	Form of Restricted Stock Award Agreement	8-K	10.2	000-54986	5/6/2016
10.8	Amended and Restated Exclusive Patent License Agreement dated May 23, 2011 between ABS and the Massachusetts Institute of Technology, as amended by the First Amendment to Amended and Restated Exclusive Patent License Agreement dated May 15, 2012 between ABS and the Massachusetts Institute of Technology, and further amended by the Second Amendment to Amended and Restated Exclusive Patent License Agreement dated February 1, 2013 between ABS and the Massachusetts Institute of Technology, as further amended by the Third Amendment to Amended and Restated Exclusive Patent License Agreement dated April 30, 2013 between ABS and the Massachusetts Institute of Technology, and as further amended by the Letter Agreement dated June 10, 2013 between ABS and the Massachusetts Institute of Technology	8-K	10.6	333-178883	6/26/2013
10.9	Form of Warrant to Purchase Shares of Common Stock dated September 30, 2013 issued by Arch Therapeutics, Inc. to the Massachusetts Life Sciences Center ((included as Exhibit B in Exhibit 10.22)	8-K	10.2	000-54986	10/4/2013
10.10	Form of MLSC Subordination Agreement	8-K	10.1	000-54986	09/09/2013
10.11	Amendment Agreement to Arch Therapeutics, Inc. Accelerator Funding Agreement dated September 28, 2016 by and between Arch Therapeutics, Inc. and Massachusetts Life Sciences Center	8-K	10.1	000-54986	09/29/2016
10.12	Form of Subscription Agreement	8-K	10.1	000-54986	3/13/2015
10.13†	Project Agreement by and between Arch Therapeutics, Inc. and the National University of Ireland Galway dated May 28, 2015	8-K	10.1	000-54986	08/07/2015
10.14	2018 Securities Purchase Agreement	8-K	10.1	000-54986	06/29/2018
10.15	Form of Series G Warrants	8-K	10.2	000-54986	06/29/2018

10.16#	Offer Letter to Join the Board of Directors of Arch Therapeutics, Inc. dated July 19, 2018, by and between Arch Therapeutics, Inc. and Punit Dhillon	8-K	10.4	000-54986	07/20/2018
10.17	May 2019 Securities Purchase Agreement	8-K	10.1	000-54986	05/13/2019
10.18	Form of Series H Warrants	8-K	10.2	000-54986	05/13/2019
10.19	Form of October 2019 Securities Purchase Agreement	8-K	10.1	000-54986	10/18/2019
10.20	Form of Series I Warrants	8-K	10.2	000-54986	10/18/2019
10.21	2019 Engagement Agreement	8-K	10.3	000-54986	10/18/2019
10.22	Form of 2019 Placement Agent Warrant	8-K	10.4	000-54986	10/18/2019
10.23	Form of Amendment to Series D Warrants to Purchase Common Stock	8-K	10.1	000-54986	06/05/2020
10.24	Form of Series J Warrant	8-K	10.2	000-54986	06/05/2020
10.25	Form of Series 1 Convertible Notes	8-K	10.3	000-54986	06/05/2020
10.25.1	Form of Amendment No. 1 to Series 1 Notes, dated March 10, 2023	8-K	10.6	000-54986	03/17/2023
10.26	Amendment to Series J Warrant to Purchase Common Stock	8-K	10.1	000-54986	11/10/2020
10.27	Form of Series 2 Convertible Notes	8-K	10.2	000-54986	11/10/2020
10.27.1	Form of Amendment No. 1 to Series 2 Notes, dated March 10, 2023	8-K	10.7	000-54986	03/17/2023
10.28	Form of 2021 Securities Purchase Agreement	8-K	10.1	000-54986	02/12/2021
10.29	Form of Series K Warrant	8-K	10.2	000-54986	02/12/2021
10.30	2021 Engagement Agreement	8-K	10.3	000-54986	02/12/2021
10.31	Form of 2021 Placement Agent Warrant	8-K	10.4	000-54986	02/12/2021
10.32	Form of Registration Rights Agreement	8-K	10.5	000-54986	02/12/2021

10.33	Executive Employment Agreement, effective May 3, 2021, by and between Arch Therapeutics, Inc. and Michael S. Abrams		8-K	10.2	000-54986	05/3/2021
10.34	Employment Agreement, effective June 30, 2021, by and between Arch Therapeutics, Inc. and Dan M. Yrigoyen		8-K	10.1	000-54986	08/11/2021
10.35	First Amendment to Employment Agreement, effective August 9, 2021, by and between Arch Therapeutics, Inc. and Dan M. Yrigoyen		8-K	10.2	000-54986	08/11/2021
10.36	Form of Securities Purchase Agreement, dated July 6, 2022, by and among the Company and the signatories thereto		8-K	10.1	000-54986	07/8/2022
10.37	Form of First Notes		8-K	10.2	000-54986	07/8/2022
10.37.1	Form of First Notes Amendment		8-K	10.1	000-54986	02/16/2023
10.37.2	Form of Amendment No. 2 to First Notes, dated March 10, 2023		8-K	10.2	000-54986	03/17/2023
10.37.3	Form of Amendment No. 3 to First Notes, dated March 15, 2023		8-K	10.4	000-54986	03/17/2023
10.37.4	Form of Amendment No. 4 to First Notes, dated April 15, 2023		8-K	10.1	000-54986	04/20/2023
10.37.5	Form of Amendment No. 5 to First Notes		10-Q	10.5	000-54986	05/23/2023
10.37.6	Form of Amendment No. 6 to First Notes, dated June 15, 2023		8-K	10.1	000-54986	06/22/2023
10.37.7	Form of Amendment No. 7 to First Notes, dated July 1, 2023		8-K	10.1	000-54986	07/07/2023
10.37.8	Form of Amendment No. 8 to First Notes		10-Q	10.17	000-54986	08/11/2023
10.37.9	Form of Amendment No. 9 to First Notes, dated July 31, 2023		8-K	10.1	000-54986	08/4/2023
10.37.10	Form of Amendment No. 10 to First Notes, dated August 30, 2023		8-K	10.1	000-54986	09/06/2023
10.37.11	Form of Amendment No. 11 to First Notes, dated September 30, 2023		8-K	10.1	000-54986	10/04/2023
10.37.12	Form of Amendment No. 12 to First Notes	X				
10.38	Form of First Warrant		8-K	10.3	000-54986	07/08/2022
10.39	Form of Registration Rights Agreement, dated July 6, 2022, by and among the Company and the signatories thereto		8-K	10.4	000-54986	07/08/2022
10.40^	Form of Security Agreement, dated July 6, 2022, by and among the Company and the signatories thereto		8-K	10.5	000-54986	07/08/2022

10.41	Form of Second Note		8-K	10.2	000-54986	01/20/2023
10.41.1	Form of Second Note Amendment		8-K	10.2	000-54986	02/16/2023
10.41.2	Form of Amendment No. 2 to Second Notes, dated March 10, 2023		8-K	10.3	000-54986	03/17/2023
10.41.3	Form of Amendment No. 3 to Second Notes, dated March 15, 2023		8-K	10.5	000-54986	03/17/2023
10.41.4	Form of Amendment No. 4 to Second Notes, dated April 15, 2023		8-K	10.2	000-54986	04/20/2023
10.41.5	Form of Amendment No. 5 to Second Notes		10-Q	10.6	000-54986	05/23/2023
10.41.6	Form of Amendment No. 6 to Second Notes, dated June 15, 2023		8-K	10.2	000-54986	06/22/2023
10.41.7	Form of Amendment No. 7 to Second Notes, dated July 1, 2023		8-K	10.2	000-54986	07/07/2023
10.41.8	Form of Amendment No. 8 to Second Notes		10-Q	10.18	000-54986	08/11/2023
10.41.9	Form of Amendment No. 9 to Second Notes, dated July 31, 2023		8-K	10.2	000-54986	08/4/2023
10.41.10	Form of Amendment No. 10 to Second Notes, dated August 30, 2023		8-K	10.2	000-54986	09/06/2023
10.41.11	Form of Amendment No. 11 to Second Notes, dated September 30, 2023		8-K	10.2	000-54986	10/04/2023
10.41.12	Form of Amendment No. 12 to Second Notes	X				
10.42	Form of Second Warrant		8-K	10.3	000-54986	01/20/2023
10.43	Form of Amended and Restated Registration Rights Agreement, dated January 18, 2023, by and among the Company and the signatories thereto		8-K	10.4	000-54986	01/20/2023
10.43.1	Form of Amendment No. 1 to the A&R Registration Rights Agreement		8-K	10.3	000-54986	04/20/2023
10.44^	Form of Amendment No. 1 to Securities Purchase Agreement, dated January 18, 2023, by and among the Company and the signatories thereto		8-K	10.1	000-54986	01/20/2023
10.45^	Form of Amendment No. 2 to Securities Purchase Agreement, dated May 15, 2023, by and among the Company and the signatories thereto		10-Q	10.1	000-54986	05/23/2023
10.46	Form of Exchange Agreement, dated March 10, 2023		8-K	10.1	000-54986	03/17/2023

10.47	Form of Third Note		10-Q	10.2	000-54986	05/23/2023
10.47.1	Form of Amendment No. 1 to Third Notes, dated June 15, 2023		8-K	10.3	000-54986	06/22/2023
10.47.2	Form of Amendment No. 2 to Third Notes, dated July 1, 2023		8-K	10.3	000-54986	07/07/2023
10.47.3	Form of Amendment No. 3 to Third Notes		10-Q	10.19	000-54986	08/11/2023
10.47.4	Form of Amendment No. 4 to Third Notes, dated July 31, 2023		8-K	10.3	000-54986	08/04/2023
10.47.5	Form of Amendment No. 5 to Third Notes, dated August 30, 2023		8-K	10.3	000-54986	09/06/2023
10.47.6	Form of Amendment No. 6 to Third Notes, dated September 30, 2023		8-K	10.3	000-54986	10/04/2023
10.47.7	Form of Amendment No. 7 to Third Notes	X				
10.48	Form of Third Warrant		10-Q	10.3	000-54986	05/23/2023
10.49	Form of Second A&R Registration Rights Agreement		10-Q	10.4	000-54986	05/23/2023
10.49.1	Form of Amendment No. 1 to Second A&R Registration Rights Agreement		8-K	10.4	000-54986	09/06/2023
10.49.2	Form of Amendment No. 2 to Second A&R Registration Rights Agreement	X				
10.50#	Arch Therapeutics, Inc. Amended and Restated 2023 Omnibus Equity Incentive Plan		8-K	10.1	000-54986	08/23/2023
10.51	Form of Omnibus Amendment to Notes and Warrants		10-Q	10.20	000-54986	08/11/2023
10.52^	Form of Securities Purchase Agreement, dated July 7, 2023, by and among the Company and the signatories thereto		10-Q	10.24	000-54986	08/11/2023
10.52.1	Form of Amendment No. 1 to Securities Purchase Agreement		8-K	10.5	000-54986	09/06/2023
10.52.2	Form of Amendment No. 2 to Securities Purchase Agreement	X				

10.53	Form of Registration Rights Agreement, dated July 7, 2023, by and among the Company and the signatories thereto		10-Q	10.25	000-54986	08/11/2023
10.53.1	Form of Amendment No. 1 to Registration Rights Agreement		10-K	10.6	000-54986	09/06/2023
10.53.2	Form of Amendment No. 2 to Registration Rights Agreement	X				
10.54	Form of PIPE Securities Purchase Agreement	X				
10.55	Form of PIPE Registration Rights Agreement	X				
10.56	PIPE Placement Agency Agreement	X				
10.57	Form of Bridge Lock-Up Agreement	X				
21.1	List of Subsidiaries		8-K	21.1	333-178883	06/26/2013
23.1	Consent of Baker Tilly US, LLP, Independent Registered Public Accounting Firm	X				
23.2	Consent of McDonald Carano LLP (included in Exhibit 5.1)	X				
23.3	Consent of Lowenstein Sandler LLP (included in Exhibit 5.2)	X				
24.1*	Power of Attorney		S-1	24.1	333-268008	10/26/2022
101.INS	Inline XBRL Instance Document					
101.SCH	Inline XBRL Taxonomy Extension Schema Document					
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					
104	Cover Page Interactive Data File (embedded within the Inline XBRL Document and included in Exhibit 101)					
107	Filing fee table	X				

* Previously filed.
^Pursuant to Item 601(b)(10) of Regulation S-K, certain identified information has been excluded from this exhibit because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed. Further, the schedules and exhibits to this agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the Securities and Exchange Commission upon request.
† Confidential treatment has been granted as to certain portions of these Exhibits.
# Management contract or compensatory plan or arrangement.

Financial Statement Schedules

All financial statement schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A (§ 230.430A of Title 17 of the Code of Federal Regulations), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (§230.424 of Title 17 of the Code of Federal Regulations);

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) The undersigned registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance on Rule 430A and contained in a form of prospectus filed by the undersigned registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(ii) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Framingham, State of Massachusetts, on November 8, 2023.

Arch Therapeutics, Inc.

By: /s/ Terrence W. Norchi, MD
Terrence W. Norchi, MD
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ Terrence W. Norchi, MD Terrence W. Norchi, MD	President, Chief Executive Officer and Director (*Principal Executive Officer*)	November 8, 2023
/s/ Michael S. Abrams Michael S. Abrams	Chief Financial Officer (*Principal Financial and Accounting Officer*)	November 8, 2023
* Punit Dhillon	Director	November 8, 2023
* Guy Fish, MD	Director	November 8, 2023
* Laurence Hicks	Director	November 8, 2023

*By: */s/ Terrence W. Norchi*, *Attorney-in-Fact*

Exhibit 1.1

UNDERWRITING AGREEMENT

[●], 2023

DAWSON JAMES SECURITIES, INC.
101 N. Federal Highway Suite 600
Newport Beach, CA 92660

As Representative of the several Underwriters
named on Schedule 1 attached hereto

Ladies and Gentlemen:

The undersigned, Arch Therapeutics, Inc., a Nevada corporation (the "Company"), hereby confirms its agreement (this "Agreement") with Dawson James Securities Inc. (the "Representative") and with the other underwriters, if any, named on Schedule 1 hereto for which the Representative is acting as representative (the Representative and such other underwriters being collectively called the "Underwriters" or, individually, an "Underwriter") as follows:

1. Purchase and Sale of Shares and Warrants.

(a) Firm Shares and Firm Warrants.

(i) Nature and Purchase of Firm Shares and Firm Warrants.

(A) On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the Underwriters an aggregate of [___] units (each a "Unit," and collectively, the "Units"), each comprised of one share (individually, "Firm Share"; collectively, the "Firm Shares") of Company common stock, par value $0.001 per share (the "Common Shares"), or in lieu of a Common Share, and (ii) a warrant to purchase one Common Share at an exercise price of $[●] per share (individually, "Firm Warrant" and, collectively, the "Firm Warrants"). To the extent that the purchase of Firm Shares would cause the beneficial ownership of a purchaser in the Offering, together with its affiliates and certain related parties, to exceed 9.99% of the Common Shares, the Company agrees to issue the Underwriters, for delivery to such purchasers, at the election of the purchasers, a number of Pre-Funded Warrants (individually "Pre-Funded Warrant"; collectively, the "Pre-Funded Warrants"), which are initially convertible on a 1-for-1 basis into Common Shares, at an exercise price of $0.001 per Common Share in lieu of the Firm Shares. The Firm Warrants, the Firm Shares and the Pre-Funded Warrants are hereafter collectively referred to as the "Firm Securities".

(B) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Units set forth opposite their respective names on Schedule 1 attached hereto and made a part hereof. The combined purchase price for one Unit shall be $[●] (92% of the public offering price per Unit of $[●]) which shall be allocated as $[●] per Firm Share (or Pre-Funded Warrant) and $[0.0092] per Firm Warrant; *provided, that* with respect to directed offers from investors introduced to the Offering by the Company, the combined purchase price for one Unit shall be $[●] (96% of the public offering price per Unit of $[●]) which shall be allocated as $[●] per Firm Share (or Pre-Funded Warrant) and $[0.0096] per Firm Warrant. The Units are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (as defined in Section 2(a)(B) hereof) (the "Purchase Price"). The Firm Shares (or Pre-Funded Warrants) and the Firm Warrants will be separated immediately upon issuance.

(ii) Securities Payment and Delivery.

(A) Delivery and payment for the Units shall be made no later than 2:00 p.m., Eastern Time, on the second (2nd) Business Day following the effective date (the "Effective Date") of the Registration Statement (as defined in Section 2(a)(i)(A) below) (or the third (3rd) Business Day following the Effective Date if the Registration Statement is declared effective after 4:01 p.m., Eastern Time) or at such other time as shall be agreed upon by the Representative and the Company, at the offices of ArentFox Schiff LLP, 1717 K Street NW, Washington DC 20006 (" Representative's Counsel"), or at such other place (or by electronic transmission) as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Units is called the "Closing Date."

(B) Payment for the Units shall be made on the Closing Date by wire transfer in federal (same day) funds, payable to the order of the Company upon delivery of the certificates (in form and substance satisfactory to the Underwriters) (or through the facilities of the Depository Trust Company ("DTC")), for the account of the Underwriters. The Firm Shares and Firm Warrants underlying the Units shall be registered in such name or names and in such authorized denominations as the Representative may request in writing prior to the Closing Date. The Company shall not be obligated to sell or deliver the Firm Shares and Firm Warrants underlying the Units except upon tender of payment by the Representative for all of the Units or via delivery versus payment for the Units. The term "Business Day" means any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions are authorized or obligated by law to close in New York, New York.

(b) Over-Allotment Option.

(i) Option Securities. For the purposes of covering any over-allotments in connection with the distribution and sale of the Units, the Company hereby grants to the Representative an option (the "Over-Allotment Option") to purchase, in the aggregate, (a) up to [●] additional Common Shares (15% of the Firm Shares and Pre-Funded Warrants underlying the Units) at a purchase price per share of $[●] (92% of the public offering price allocated to each Firm Share) (the "Option Shares" and together with the Firm Shares, the "Shares"), and/or (b) [●] warrants to purchase an aggregate of [●] Common Shares (15% of the Firm Warrants) at a purchase price of $[0.0092] per warrant (92% of the public offering price allocated to each set of Firm Warrants) (the "Option Warrants" and together with the Firm Warrants, the "Warrants"), which may be purchased in any combination of Option Shares and/or Option Warrants. The Option Shares and the Option Warrants are referred to as the "Option Securities"). The Firm Securities and the Option Securities are collectively referred to as the "Public Securities." The Public Securities shall be issued directly by the Company and shall have the rights and privileges described in the Registration Statement, the Pricing Disclosure Package and the Prospectus referred to below. The offering and sale of the Public Securities is hereinafter referred to as the "Offering."

(ii) Exercise of Over-Allotment Option. The Over-Allotment Option granted pursuant to Section 1(b)(i) hereof may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Securities within 45 days after the Closing Date. An Underwriter shall not be under any obligation to purchase any Option Securities prior to the exercise of the Over-Allotment Option by the Representative. The Over-Allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or by email or other electronic transmission setting forth the number of Option Shares and/or Option Warrants to be purchased and the date and time for delivery of and payment for the Option Shares and/or Option Warrants, as the case may be (each, an "Option Closing Date"), which shall not be earlier than one (1) Business Day nor later than five (5) full Business Days after the date of the written notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of the Representative's Counsel, or at such other place (including remotely by electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Shares and/or Option Warrants does not occur on the Closing Date, each Option Closing Date will be as set forth in the notice. Upon exercise of the Over-Allotment Option, the Company will become obligated to convey to the Representative, and, subject to the terms and conditions set forth herein, the Representative will become obligated to purchase, the number of Option Shares and/or Option Warrants specified in such notice.

(iii) Payment and Delivery. Payment for the Option Shares and/or Option Warrants shall be made on the Option Closing Date by wire transfer in federal (same day) funds, payable to the order of the Company upon delivery to the Representative of certificates (in form and substance satisfactory to the Representative) representing the Option Shares and/or Option Warrants (or through the facilities of the DTC or Deposit/Withdrawal at Custodian transfer) for the account of the Representative. The Option Shares and/or Option Warrants shall be registered in such name or names and in such authorized denominations as the Representative may request in writing prior to the Option Closing Date. The Company shall not be obligated to sell or deliver the Option Shares and/or Option Warrants except upon tender of payment by the Representative for the applicable Option Shares and/or Option Warrants.

(c) Reserved.

2. Representations and Warranties of the Company. The Company represents and warrants to the Underwriters as of the Applicable Time (as defined below) and as of the Closing Date, or any Option Closing Date, as follows:

(a) Registration Matters.

(i) Pursuant to the Securities Act.

(A) The Company has filed with the U.S. Securities and Exchange Commission (the "Commission") a registration statement, and amendments thereto, on Form S-1 (File No. 333-268008), including any related prospectus or prospectuses (the "Prospectus"), for the registration of the Public Securities and the Underlying Common Stock (as defined below) under the Securities Act of 1933, as amended (the "Securities Act"), which registration statement and amendment or amendments have been prepared by the Company in conformity in all material respects with the requirements of the Securities Act and the rules and regulations of the Commission under the Securities Act (the "Securities Act Regulations") and will contain all material statements that are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement became effective (including the Preliminary Prospectus included in the registration statement, financial statements, schedules, exhibits and all other documents filed as a part thereof and all information deemed to be a part thereof as of the Effective Date pursuant to paragraph (b) of Rule 430A of the Securities Act Regulations (the "Rule 430A Information")), is referred to herein as the "Registration Statement." If the Company files any registration statement pursuant to Rule 462(b) of the Securities Act Regulations, then after such filing, the term "Registration Statement" shall include such registration statement filed pursuant to Rule 462(b). The Registration Statement has been declared effective by the Commission on the date hereof.

(B) Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a "Preliminary Prospectus." The Preliminary Prospectus, subject to completion, dated [_____], 2023, that was included in the Registration Statement immediately prior to the Applicable Time is hereinafter called the "Pricing Prospectus." The final prospectus in the form first furnished to the Underwriters for use in the Offering is hereinafter called the "Prospectus." Any reference to the "most recent Preliminary Prospectus" shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement.

(C) The term "Pricing Disclosure Package" means (i) the Preliminary Prospectus, as most recently amended or supplemented immediately prior to the Applicable Time (as defined herein), and (ii) the information included on Schedule 2 of this Agreement.

(D) "Applicable Time" means 4:30 p.m., Eastern Time, on the date of this Agreement.

(ii) Pursuant to the Exchange Act. The Company has filed with the Commission a Form 8-A providing for the registration pursuant to Section 12(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), of the Firm Securities. The registration of the Firm Securities under the Exchange Act will be effective on or prior to the date hereof. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Shares or Warrants under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration.

(b) Stock Exchange Listing. The Common Shares and Warrants have been approved for listing on The Nasdaq Capital Market (the "Exchange"), and the Company has taken no action designed to, or likely to have the effect of, delisting the Common Shares or Warrants from the Exchange, nor has the Company received any notification that the Exchange is contemplating terminating such listing. The Company is in compliance with all continued listing criteria and rules of the Exchange, including but not limited to newly-adopted Rule 5608.

(c) No Stop Orders, etc. Neither the Commission nor, to the Company's knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus or the Prospectus or has instituted or, to the Company's knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) from the Commission for additional information.

(d) Organization; Good Standing; No Subsidiaries. The Company has been duly incorporated and is validly existing as entities in good standing under the laws of the State of Nevada, with power and authority to own, lease and operate its respective properties and conduct its respective businesses as described in the Preliminary Prospectus, and has been duly qualified as foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except where the failure so to qualify or be in good standing would not have a Material Adverse Change (as defined in Section 2(f)(i)). The Company is not in violation or default of any of the provisions of its certificate of incorporation, bylaws or other organizational or charter documents. Other than [_____], the Company does not have any direct or indirect subsidiaries.

(e) Disclosures in Registration Statement.

(i) Compliance with Securities Act and 10b-5 Representation.

(A) Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus, including the prospectus filed as part of the Registration Statement as originally filed or as part of any amendment or supplement thereto, and the Prospectus, at the time each was filed with the Commission, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus delivered to the Underwriters for use in connection with this Offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(B) Neither the Registration Statement nor any amendment thereto, at its respective effective time, contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that this representation and warranty shall not apply to the Underwriters' Information (as defined below).

(C) The Pricing Disclosure Package, as of the Applicable Time, at the Closing Date or at any Option Closing Date, did not and does not, and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by the Representative expressly for use in the Registration Statement, the Preliminary Prospectus or the Prospectus or any amendment thereof or supplement thereto. The parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of the following disclosure contained in the following paragraphs in the "Underwriting" section of the Prospectus: (i) the names of the several underwriters, and (ii) the information under the subsections "Discounts and Commissions; Expenses"; "Discretionary Accounts," "Price Stabilization, Short Positions and Penalty Bids;" and "Electronic Distribution" (the "Underwriters' Information"); and

(D) Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), or at the Closing Date, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to the Underwriters' Information.

(ii) Disclosure of Agreements. The agreements and documents described in the Registration Statement, the Pricing Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the Securities Act Regulations to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (w) for such agreements or instruments for enforceability of which would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change, (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, none of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company's knowledge, any other party is in material default thereunder and, to the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a material default thereunder, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, or which would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change. To the Company's best knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses (each, a "Governmental Entity"), including, without limitation, those relating to environmental laws and regulations, except such violations which would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change.

(iii) Prior Securities Transactions. Since the beginning of the last two full fiscal years, no securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by or under common control with the Company, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Preliminary Prospectus.

(iv) Regulations. The disclosures in the Registration Statement, the Pricing Disclosure Package and the Prospectus concerning the effects of federal, state, local and foreign laws, rules and regulations relating to the Company's business as currently contemplated are correct in all material respects and no other such regulations are required to be disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus which are not so disclosed.

(f) Changes After Dates in Registration Statement.

(i) No Material Adverse Change. Since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except as otherwise specifically stated therein: (i) there has been no material adverse change in the financial position or results of operations of the Company, nor, to the Company's knowledge, any change or development that, singularly or in the aggregate, would involve a material adverse change in or affecting the condition (financial or otherwise), results of operations, business or assets of the Company, taken as a whole (a "Material Adverse Change"); (ii) there have been no material transactions entered into by the Company, other than as contemplated pursuant to this Agreement; and (iii) no officer or director of the Company has resigned from any position with the Company.

(ii) Recent Securities Transactions, etc. Subsequent to the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and except as may otherwise be indicated or contemplated herein or disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not: (i) issued any securities (other than (i) grants under any stock compensation plan and (ii) Common Shares issued upon exercise or conversion of option, warrants or convertible securities described in the Registration Statement, the Pricing Disclosure Package and the Prospectus) or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

(g) Independent Accountants. To the knowledge of the Company, Baker Tilly US, LLP, during such time as it was engaged by the Company (the "Auditors"), has been and is an independent registered public accounting firm as required by the Securities Act and the Securities Act Regulations and the Public Company Accounting Oversight Board. During such time period in which the Auditors served as the Company's independent registered public accounting firm, the Auditors did not or have not, during the periods covered by the financial statements included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

(h) Financial Statements, etc. The financial statements, including the notes thereto and supporting schedules included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, fairly present in all material respects the financial position and the results of operations of the Company at the dates and for the periods to which they apply; and such financial statements have been prepared in conformity with United States generally accepted accounting principles ("GAAP"), consistently applied throughout the periods involved (provided that unaudited interim financial statements are subject to year-end audit adjustments that are not expected to be material in the aggregate and do not contain all footnotes required by GAAP); and the supporting schedules included in the Registration Statement present fairly in all material respects the information required to be stated therein. Except as included therein, no historical or pro forma financial statements are required to be included in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Securities Act or the Securities Act Regulations. The pro forma and pro forma as adjusted financial information and the related notes, if any, included in the Registration Statement, the Pricing Disclosure Package and the Prospectus have been properly compiled and prepared in all material respects in accordance with the applicable requirements of the Securities Act and the Securities Act Regulations and present fairly in all material respects the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein. All disclosures contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission), if any, comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K of the Securities Act, to the extent applicable. Each of the Registration Statement, the Pricing Disclosure Package and the Prospectus discloses all material off-balance sheet transactions, arrangements, obligations (including contingent obligations), and other relationships of the Company with unconsolidated entities or other persons that may have a material current or future effect on the Company's financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenues or expenses. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, (c) there has not been any change in the capital stock of the Company (other than (i) grants under any stock compensation plan and (ii) Common Shares issued upon exercise or conversion of option, warrants or convertible securities described in the Registration Statement, the Pricing Disclosure Package and the Prospectus), and (d) there has not been any Material Adverse Change in the Company's long-term or short-term debt.

(i) Authorized Capital; Options, etc. The Company had, at the date or dates indicated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the duly authorized, issued and outstanding capitalization as set forth therein. Based on the assumptions stated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company will have on the Closing Date the adjusted stock capitalization set forth therein. Except as set forth in, or contemplated by, the Registration Statement, the Pricing Disclosure Package and the Prospectus, on the Effective Date, as of the Applicable Time, and on the Closing Date, there will be no stock options, warrants, or other rights to purchase or otherwise acquire any authorized, but unissued Common Shares or any security convertible or exercisable into Common Shares, or any contracts or commitments to issue or sell Common Shares or any such options, warrants, rights or convertible securities.

(j) Valid Issuance of Securities, etc.

(i) Outstanding Securities. All issued and outstanding securities of the Company issued prior to the transactions contemplated by this Agreement have been duly authorized and validly issued and are fully paid and non-assessable; the holders thereof have no rights of rescission with respect thereto, and are not subject to personal liability by reason of being such holders; and none of such securities were issued in violation of the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. The offers and sales of the outstanding Common Shares were at all relevant times either registered under the Securities Act and the applicable state securities or "blue sky" laws or, based in part on the representations and warranties of the purchasers of such shares, exempt from such registration requirements. The authorized Common Shares and other outstanding securities conform in all material respects to all statements relating thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(ii) Securities Sold Pursuant to this Agreement. The Public Securities have been duly authorized for issuance and sale and, when issued and paid for in accordance with the terms of this Agreement, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; the Public Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company; and all corporate action required to be taken for the authorization, issuance and sale of the Public Securities has been duly and validly taken. The Public Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The Common Shares issuable upon exercise of the Warrants (the "Underlying Common Stock") have been duly authorized and reserved for issuance by all necessary corporate action on the part of the Company and when paid for and issued in accordance with such Warrants, or exercised on a cashless basis as set forth in such Warrants, if applicable, as the case may be, such shares of Underlying Common Stock will be validly issued, fully paid and non-assessable.

(k) Registration Rights of Third Parties. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no holders of any securities of the Company or any rights exercisable for or convertible or exchangeable into securities of the Company have the right to require the Company to register any such securities of the Company under the Securities Act or to include any such securities in a registration statement to be filed by the Company.

(l) Validity and Binding Effect of Agreements. This Agreement, the Warrant Agreement by and between the Company and Empire Stock Transfer (the "Warrant Agreement") have been duly and validly authorized by the Company and, when executed and delivered, will constitute, the valid and binding agreements of the Company, enforceable against the Company in accordance with their respective terms, except: (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization, fraudulent conveyance, fraudulent transfer, moratorium or similar laws affecting creditors' rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

(m) No Conflicts, etc. The execution, delivery and performance by the Company of this Agreement, the Warrant Agreement, and all ancillary documents, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms hereof and thereof do not and will not, with or without the giving of notice or the lapse of time or both: (i) result in a material breach of, or conflict with any of the terms and provisions of, or constitute a material default under, or result in the creation, modification, termination or imposition of any material lien, charge or encumbrance upon any property or assets of the Company pursuant to the terms of any agreement or instrument to which the Company is a party; (ii) result in any violation of the provisions of the Company's certificate of incorporation (as the same may be amended or restated from time to time, the "Charter") or the by-laws of the Company (as the same may be amended or restated from time to time, the "Bylaws"); or (iii) violate any existing law, rule, regulation, judgment, order or decree of any Governmental Entity applicable to the Company as of the date hereof (including, without limitation, those promulgated by the Food and Drug Administration of the U.S. Department of Health and Human Services (the "FDA") or by any foreign, federal, state or local regulatory authority performing functions similar to those performed by the FDA), except in the case of clauses (i) and (iii) above for any such breaches, conflicts or violations which would not reasonably be expected to result in a Material Adverse Change.

(n) Regulatory. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change: (i) the Company has not received any FDA Form 483, written notice of adverse finding, warning letter or other correspondence or written notice from the FDA or any other Governmental Entity alleging or asserting noncompliance with any Applicable Laws (as defined in clause (ii) below) or Authorizations (as defined in clause (iii) below); (ii) the Company is and has been in material compliance with statutes, laws, ordinances, rules and regulations applicable to the Company, including, without limitation, all statutes, laws, ordinances, rules and regulations for the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, including, without limitation, the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 301, et seq., similar laws of other Governmental Entities and the regulations promulgated pursuant to such laws (collectively, "Applicable Laws"); (iii) the Company possesses all licenses, certificates, approvals, clearances, consents, authorizations, qualifications, registrations, permits, and supplements or amendments thereto required by any such Applicable Laws and/or to carry on its businesses as now conducted ("Authorizations") and such Authorizations are valid and in full force and effect and the Company is not in violation of any term of any such Authorizations; (iv) the Company has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Entity or third party alleging that any product, operation or activity is in violation of any Applicable Laws or Authorizations or has any knowledge that any such Governmental Entity or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding, nor, to the Company's knowledge, has there been any material noncompliance with or violation of any Applicable Laws by the Company that could reasonably be expected to require the issuance of any such communication or result in an investigation, corrective action, or enforcement action by the FDA or any other Governmental Entity; (v) the Company has not received written notice that any Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations or has any knowledge that any such Governmental Entity has threatened or is considering such action; (vi) the Company has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were, in all material respects, complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission); and (vii) the Company has not, either voluntarily or involuntarily, initiated, conducted or issued, or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, "dear doctor" letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company's knowledge, no third party has initiated, conducted or intends to initiate or conduct such notice or action. Neither the Company nor, to the Company's knowledge, any of its directors, officers, employees or agents (in their capacities as such) has been convicted of any crime under any Applicable Laws or has been the subject of an FDA debarment proceeding. The Company has not been or is now subject to FDA's Application Integrity Policy. To the Company's knowledge, neither the Company, nor any of its directors, officers, employees or agents (in their capacities as such), has made, or caused the making of, any false statements on, or material omissions from, any other records or documentation prepared or maintained to comply with the requirements of the FDA or any other Governmental Entity. Neither the Company nor, to the Company's knowledge, any of its directors, officers, employees or agents (in their capacities as such), have with respect to each of the following statutes, or regulations promulgated thereto, as applicable, : (i) engaged in activities under 42 U.S.C. §§ 1320a-7b or 1395nn; (ii) knowingly engaged in any activities under 42 U.S.C. § 1320a-7b or the Federal False Claims Act, 31 U.S.C. § 3729; or (iii) knowingly and willfully engaged in any activities under 42 U.S.C.§ 1320a-7b, which are prohibited, cause for civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other State Health Care Program or Federal Health Care Program.

(o) Clinical Studies. The studies, tests and clinical trials conducted by or on behalf of the Company were and, if still pending, are being conducted in accordance with experimental protocols, procedures and controls pursuant to all Applicable Laws and Authorizations, except where such failure to comply would not, individually or in the aggregate, result in a Material Adverse Change; the descriptions of the results of such studies, tests and trials contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such studies, tests and trials; except to the extent disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has no knowledge of any studies, tests or trials, the results of which the Company believes reasonably call into question the study, test, or trial results described or referred to in the Registration Statement, the pricing Disclosure Package and the Prospectus when viewed in the context in which such results are described and the clinical state of development; and the Company has not received any written notices or correspondence from any Governmental Entity requiring the termination, suspension or material modification of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company.

(p) No Defaults; Violations. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no default exists in the due performance and observance of any term, covenant or condition of any material license, contract, indenture, mortgage, deed of trust, note, loan or credit agreement, or any other agreement or instrument evidencing an obligation for borrowed money, or any other material agreement or instrument to which the Company is a party or by which the Company may be bound or to which any of the properties or assets of the Company is subject, except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change. The Company is not (i) in violation of any term or provision of its Charter or Bylaws, or (ii) except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change, in violation of any franchise, license, permit, applicable law, rule, regulation, judgment or decree of any Governmental Entity applicable to the Company.

(q) Corporate Power; Licenses; Consents.

(i) Conduct of Business. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has all requisite corporate power and authority, and has all necessary authorizations, approvals, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date hereof to conduct its business purpose as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except where such failure to have such necessary authorizations, approvals, orders, licenses, certificates and permits would not reasonably be expected to result in a Material Adverse Change.

(i i) Transactions Contemplated Herein. The Company has all corporate power and authority to enter into this Agreement and to carry out the provisions and conditions hereof, and all consents, authorizations, approvals and orders required in connection therewith have been obtained. No consent, authorization or order of, and no filing with, any court, government agency or other body is required for the valid issuance, sale and delivery of the Public Securities and the consummation of the transactions and agreements contemplated by this Agreement and as contemplated by the Registration Statement, the Pricing Disclosure Package and the Prospectus, except with respect to applicable federal and state securities laws, the rules and regulations of the Financial Industry Regulatory Authority, Inc. (" FINRA") and the rules and regulations of the Exchange, and except with respect to such consent, authorization, order or filing that would not reasonably be expected to have a Material Adverse Change.

(r) Litigation; Governmental Proceedings. There is no material action, suit, proceeding, inquiry, arbitration, investigation, litigation or governmental proceeding pending or, to the Company's knowledge, threatened against, or involving the Company or, to the Company's knowledge, any executive officer or director which has not been disclosed in the Registration Statement, the Pricing Disclosure Package, the Prospectus or in connection with the Company's listing application for the additional listing of the Shares on the Exchange and which is required to be disclosed, in each case individually or in the aggregate.

(s) Good Standing. The Company has been duly organized and is validly existing as a corporation and is in good standing under the laws of the State of Nevada as of the date hereof, and is duly qualified to do business and is in good standing in each other jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify, singularly or in the aggregate, would not have or reasonably be expected to result in a Material Adverse Change.

(t) Insurance. The Company carries or is entitled to the benefits of insurance, with, to the Company's knowledge, reputable insurers, and in such amounts and covering such risks which the Company believes are reasonably adequate, and all such insurance is in full force and effect. The Company has no reason to believe that it will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected to result in a Material Adverse Change.

(u) Transactions Affecting Disclosure to FINRA.

(i) Finder's Fees. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no claims, payments, arrangements, agreements or understandings relating to the payment of a finder's, consulting or origination fee by the Company or any executive officer or director of the Company (each, an, "Insider") with respect to the sale of the Public Securities hereunder or any other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by FINRA.

(ii) Payments Within 180 Days. The Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any U.S. person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the 180 days prior to the date of the initial filing of the Registration Statement, other than the payment to the Underwriters as provided hereunder in connection with the Offering.

(iii) Use of Proceeds. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

(iv) FINRA Affiliation. There is no (i) officer or director of the Company, (ii) to the Company's knowledge, beneficial owner of 5% or more of any class of the Company's securities or (iii) to the Company's knowledge, beneficial owner of the Company's unregistered equity securities which were acquired during the 180-day period immediately preceding the filing of the Registration Statement that, in each such case, is an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

(v) Information. To the Company's knowledge, all information provided by the Company's officers and directors in their FINRA Questionnaires to Representative's Counsel specifically for use by Representative's Counsel in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

(v) Foreign Corrupt Practices Act. Neither the Company nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company (acting in such capacity) or any other person acting on behalf of the Company (acting in such capacity), has, directly or indirectly, given or agreed to give any money, gift or similar benefit (other than legal price concessions to customers in the ordinary course of business) to any customer, supplier, employee or agent of a customer or supplier, or official or employee of any governmental agency or instrumentality of any government (domestic or foreign) or any political party or candidate for office (domestic or foreign) or other person who was, is, or may be in a position to help or hinder the business of the Company (or assist it in connection with any actual or proposed transaction) that (i) might subject the Company to any damage or penalty in any civil, criminal or governmental litigation or proceeding, (ii) if not given in the past, might reasonably been expected to have had a Material Adverse Change or (iii) if not continued in the future, might adversely affect the assets, business, operations or prospects of the Company. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the Foreign Corrupt Practices Act of 1977, as amended.

(w) Compliance with OFAC. Neither the Company nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company (acting in such capacity) or any other person acting on behalf of the Company (acting in such capacity), is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("OFAC").

(x) Money Laundering Laws. The operations of the Company are and have been conducted at all times in compliance in all material respects with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(y) Officers' Certificate. Any certificate signed by any duly authorized officer of the Company in connection with the Offering and delivered to the Representative or to Representative's Counsel shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

(z) Related Party Transactions. There are no business relationships or related party transactions involving the Company or any other person required to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that have not been described as required.

(aa) Board of Directors. The qualifications of the persons serving as board members and the overall composition of the board comply with the Exchange Act, the Exchange Act Regulations, the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder (the "Sarbanes-Oxley Act") applicable to the Company and the listing rules of the Exchange. At least one member of the Audit Committee of the Board of Directors of the Company qualifies as an "audit committee financial expert," as such term is defined under Regulation S-K and the listing rules of the Exchange.

(bb) Sarbanes-Oxley Compliance.

(i) Disclosure Controls. The Pricing Disclosure Package and the Prospectus, the Company has developed and currently maintains disclosure controls and procedures that will comply with Rule 13a-15 or 15d-15 under the Exchange Act Regulations applicable to it, and, except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, such controls and procedures are as of the date hereof effective to ensure that all material information concerning the Company will be made known on a timely basis to the individuals responsible for the preparation of the Company's Exchange Act filings and other public disclosure documents.

(iii) Compliance. The Company is in compliance with the provisions of the Sarbanes-Oxley Act applicable to it, and has implemented or will implement such programs and has taken or will take reasonable steps to ensure the Company's future compliance (not later than the relevant statutory and regulatory deadlines therefor) with all of the provisions of the Sarbanes-Oxley Act, except where the failure to be in compliance would not have or reasonably be expected to result in a Material Adverse Change.

(cc) Accounting Controls. The Company maintains systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act Regulations) that comply in all material respects with the requirements of the Exchange Act and have been designed by, or under the supervision of, its principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has no knowledge of any material weaknesses in its internal controls. The Auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses, if any, in the design or operation of internal controls over financial reporting which are known to the Company's management and that have adversely affected or are reasonably likely to adversely affect the Company' ability to record, process, summarize and report financial information; and (ii) any fraud, if any, known to the Company's management, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

(dd) No Investment Company Status. The Company is not and, after giving effect to the Offering and the application of the proceeds thereof as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be, required to register as an "investment company," as defined in the Investment Company Act of 1940, as amended.

(ee) No Labor Disputes. No labor dispute with the employees of the Company exists or, to the knowledge of the Company, is imminent.

(f f) Intellectual Property Rights. To the Company's knowledge, the Company has, or can acquire on reasonable terms, ownership of and/or license to, or otherwise has the right to use, all inventions, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), patents and patent rights trademarks, service marks and trade names and copyrights (collectively "Intellectual Property") material to carrying on its businesses as described in the Pricing Prospectus. The Company has not received any written notice relating to any Intellectual Property, including written notice of: (A) infringement or misappropriation of, or conflict with, any Intellectual Property of a third party; (B) asserted rights of others with respect to any Intellectual Property of the Company; or (C) assertions that any Intellectual Property of the Company is invalid or otherwise inadequate to protect the interest of the Company, that in each case (if the subject of any unfavorable decision, ruling or finding), individually or in the aggregate, would have or would reasonably be expected to have a Material Adverse Change. To the Company's knowledge, there are no third parties who have been able to establish any material rights to any Intellectual Property, except for the retained rights of the owners or licensors of any Intellectual Property that is licensed to the Company. There is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others: (A) challenging the validity, enforceability or scope of any Intellectual Property of the Company in any material respect or (B) challenging the Company's rights in or to any Intellectual Property in any material respect or (C) that the Company materially infringes, misappropriates or otherwise violates or conflicts with any Intellectual Property or other proprietary rights of others. The Company has complied in all material respects with the terms of each agreement described in the Registration Statement, Pricing Disclosure Package or Prospectus pursuant to which any Intellectual Property is licensed to the Company, except for such noncompliance as did not have a Material Adverse Change, and all such agreements related to products currently made or sold by the Company, or to product candidates currently under development, are in full force and effect. All patents issued in the name of, or assigned to, or licensed to the Company, and all patent applications made by or on behalf of the Company (collectively, the "Company Patents") have been duly and properly filed, except for such failures to file as would reasonably be expected to result in a Material Adverse Change. The Company has no knowledge of any material information that was required to be disclosed to the United States Patent and Trademark Office (the "PTO") but that was not disclosed to the PTO with respect to any issued Company Patent, or that is required to be disclosed and has not yet been disclosed in any pending application in the Company Patents and that would preclude the grant of a patent on such application. To the Company's knowledge, the Company is the sole owner or exclusive licensee of the Company Patents.

(gg) Taxes. The Company has filed all returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof. The Company has paid all taxes (as hereinafter defined) shown as due on such returns that were filed and has paid all taxes imposed on or assessed against the Company, except (i) such taxes the Company is challenging in good faith and (ii) for such exceptions as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Change. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all material accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. Except as would not reasonably be expected to result in a Material Adverse Change, (i) no issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company. The term "taxes" mean all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind whatever, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

(hh) Employee Benefit Laws. The operations of the Company are and have, in the last three (3) years, been conducted at all times in material compliance with the Employee Retirement Income Security Act of 1974, as amended, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Employee Benefit Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Employee Benefit Laws is pending or, to the knowledge of the Company, threatened.

(ii) Compliance with Laws. The Company in the last three (3) years: (A) to its knowledge is and at all times has been in compliance with all Applicable Laws, except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change; (B) has not received any written correspondence from any Governmental Entity alleging or asserting noncompliance with any Applicable Laws or any Authorizations; (C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and the Company is not in material violation of any term of any such Authorizations, in each case except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change; (D) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Entity or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such Governmental Entity or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received written notice that any Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations; and (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects on the date filed (or were corrected or supplemented by a subsequent submission).

(jj) Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the time of effectiveness of the Registration Statement and any amendment thereto, at the earliest time thereafter that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) of the Securities Act Regulations) of the Public Securities and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405, without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

(kk) Industry Data. The statistical and market-related data included in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources.

(ll) Forward-Looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(mm) Website. To the knowledge of the Company, none of the information on (or hyperlinked from) the Company's website at www.archtherapeutics.com includes or constitutes a "free writing prospectus" as defined in Rule 405 under the Securities Act.

(nn) Emerging Growth Company. From the time of the initial submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly in or through any Person authorized to act on its behalf in any Testing-the Waters Communication) through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "Emerging Growth Company").

(oo) Testing-the-Waters Communications. The Company has not (i) alone engaged in any Testing-the-Waters Communications, and (ii) authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company confirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications. " Testing-the-Waters Communication" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act. "Written Testing-the-Waters Communication" means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

(pp) Margin Securities. The Company owns no "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"), and none of the proceeds of Offering will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the Common Shares to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

(qq) Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities issued in such prior offerings under the Securities Act.

(rr) Confidentiality and Non-Competition. To the Company's knowledge, no director, officer, key employee or consultant of the Company is subject to any confidentiality, non-disclosure, non-competition agreement or non-solicitation agreement with any employer (other than the Company) or prior employer that could reasonably be expected to materially affect his ability to be and act in his respective capacity of the Company or reasonably be expected to result in a Material Adverse Change.

(ss) Smaller Reporting Company. The Company is a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act Regulations.

3. Covenants of the Company. The Company covenants and agrees as follows:

(a) Amendments to Registration Statement. The Company shall deliver to the Representative, prior to filing, any amendment or supplement to the Registration Statement or Prospectus proposed to be filed after the Effective Date and not file any such amendment or supplement to which the Representative shall reasonably object in writing; provided however, that this Section 3(a) shall not be applicable with respect to any supplements to the Registration Statement filed solely for the purpose of supplementing the Registration Statement or Prospectus with a report filed with the Commission by the Company pursuant to the Exchange Act.

(b) Federal Securities Laws.

(i) Compliance. The Company shall comply with the requirements of Rule 430A of the Securities Act Regulations, and will notify the Representative promptly, and confirm the notice in writing, (i) when any amendment or supplement to the Prospectus shall have been filed; (ii) of the receipt of any comments from the Commission related to the Prospectus or Offering; (iii) of any request by the Commission for any amendment or supplement to the Prospectus or for additional information; (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus, or of the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction, or of the initiation or, to the Company's knowledge, threatening, of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the Securities Act concerning the Registration Statement; and (v) if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the Offering of the Public Securities. The Company shall effect all filings required under Rule 424(b) of the Securities Act Regulations, in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and shall take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company shall use its commercially reasonable efforts to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

(ii) Continued Compliance. The Company shall comply with the Securities Act, the Securities Act Regulations, the Exchange Act and the Exchange Act Regulations so as to permit the completion of the distribution of the Public Securities as contemplated in this Agreement and in the Registration Statement, the Pricing Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172 of the Securities Act Regulations ("Rule 172"), would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend or supplement the Pricing Disclosure Package or the Prospectus in order that the Pricing Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (ii) amend the Registration Statement or amend or supplement the Pricing Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the Securities Act or the Securities Act Regulations, the Company will promptly (A) give the Representative notice of such event; (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the Pricing Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representative with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representative or counsel for the Representative shall reasonably object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative notice of any filings made pursuant to the Exchange Act or the Exchange Act Regulations within 48 hours prior to the Applicable Time. The Company shall give the Representative notice of its intention to make any such filing from the Applicable Time until the later of the Closing Date and the exercise in full or expiration of the Over-allotment Option specified in Section 1(b) hereof.

(iii) Exchange Act Registration. The Company shall use its commercially reasonable efforts to maintain the registration of the Common Shares and Warrants under the Exchange Act.

(c) Delivery to the Underwriters of Registration Statements. The Company has delivered or made available or shall deliver or make available to the Representative and counsel for the Representative, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith) and signed copies of all consents and certificates of experts, and will also deliver to the Underwriters, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) Delivery to the Underwriters of Prospectuses. The Company has delivered or made available or will deliver or make available to each Underwriter, without charge, as many copies of each Preliminary Prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(e) Events Requiring Notice to the Representative. During the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, the Company shall notify the Representative immediately and confirm the notice in writing: (i) of the issuance by the Commission of any stop order or of the initiation, or to the Company's knowledge, the threatening, of any proceeding for that purpose; (ii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or to the Company's knowledge, the threatening, of any proceeding for that purpose; (iii) of the delivery to the Commission for filing of any amendment or supplement to the Prospectus; (iv) of the receipt of any comments or request for any additional information from the Commission related to the Prospectus; and (v) of the happening of any event during the period described in this Section 3(e) that, in the judgment of the Company, makes any statement of a material fact made in the Pricing Disclosure Package or the Prospectus untrue or that requires the making of any changes in in the Pricing Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company shall use its commercially reasonable efforts to obtain promptly the lifting of such order.

(f) Listing. The Company shall use its commercially reasonable efforts to maintain the listing of the shares of Common Shares and Warrants on the Exchange for a period of three (3) years.

(g) Transfer Agent; Warrant Agent. The Company shall maintain a transfer agent and registrar for the Common Stock and a Warrant Agent for the Warrants.

(h) Reserved.

(i) Application of Net Proceeds. The Company shall apply the net proceeds from the Offering received by it in a manner consistent with the application thereof described under the caption "Use of Proceeds" in the Prospectus.

(j) Rule 158. The Company will timely file such reports pursuant to the Exchange Act as are necessary in order to make generally available to its security holders as soon as practicable an earnings statement for the purposes of, and to provide to the Underwriters the benefits contemplated by, Rule 158(a) under Section 11(a) of the Securities Act.

(k) Stabilization. Neither the Company nor, to its knowledge, any of its employees, directors or stockholders (without the consent of the Representative) has taken or shall take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

(l) FINRA. For a period of 90 days from the later of the Closing Date or Option Closing Date, the Company shall advise the Representative (who shall make an appropriate filing with FINRA) if it has knowledge that (i) any officer or director of the Company, (ii) any beneficial owner of 5% or more of any class of the Company's securities or (iii) any beneficial owner of the Company's unregistered equity securities which were acquired during the 180 days immediately preceding the filing of the Registration Statement, is or becomes an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

(m) No Fiduciary Duties. The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual in nature and that none of the Underwriters or their affiliates or any selling agent shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement.

(n) OFAC. The Company will not, directly or indirectly, use the proceeds of the Offering hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(o) Company Lock-Up Agreement. The Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of six (6) months after the date of this Agreement (the "Lock-Up Period"), (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or caused to be filed any registration statement with the Commission relating to the offering of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company, other than pursuant to existing registration rights in favor of stockholders of the Company or on Form S-8 or successor form thereto; or (iii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of capital stock of the Company, whether any such transaction described in clause (i), (ii) or (iii) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise. The restrictions contained in this Section 3(o) shall not apply to (i) the Common Shares and Warrants to be sold hereunder, (ii) the issuance by the Company of Common Shares upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date hereof and disclosed in the Registration Statement, the Pricing Disclosure Package or the Prospectus, and (iii) the issuance by the Company of stock options or shares of capital stock of the Company under any equity compensation plan of the Company disclosed in the Registration Statement, the Pricing Disclosure Package or the Prospectus.

4. Conditions of Underwriters' Obligations. The obligations of the Underwriters to purchase and pay for the Public Securities, as provided herein, shall be subject to (i) the continuing accuracy of the representations and warranties of the Company as of the date hereof and as of each of the Closing Date, and any Option Closing Date; (ii) the accuracy of the statements of officers of the Company made pursuant to the provisions hereof; (iii) the performance by the Company of its obligations hereunder; and (iv) the following conditions:

(a) Regulatory Matters.

(i) Effectiveness of Registration Statement. The Registration Statement has become effective not later than 5:00 p.m., Eastern Time, on the date of this Agreement or such later date and time as shall be consented to in writing by the Representative, and, at each of the Closing Date and any Option Closing Date, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto shall have been issued under the Securities Act, no order preventing or suspending the use of any Preliminary Prospectus or the Prospectus shall have been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information. The Prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) (without reliance on Rule 424(b)(8)) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A.

(ii) FINRA Clearance. On or before the date of this Agreement, the Representative shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement.

(iii) Exchange Stock Market Clearance. On the Closing Date, the Firm Shares and Firm Warrants shall have been approved for listing on the Exchange.

(b) Company Counsel Matters.

(i) Closing Date Opinion of Counsel. On the Closing Date, the Representative shall have received the favorable opinion and negative assurance letter of Lowenstein Sandler LLP, counsel to the Company, dated the Closing Date and addressed to the Representative, substantially in form and substance reasonably satisfactory to the Representative.

(ii) Option Closing Date Opinion of Counsel. On each Option Closing Date, if any, the Representative shall have received the favorable opinion of Lowenstein Sandler LLP, dated the Option Closing Date, addressed to the Representative and in form and substance reasonably satisfactory to the Representative, confirming as of the Option Closing Date, the statements made by such counsel in its respective opinions delivered on the Closing Date.

(iii) Reliance. In rendering such opinions, such counsel may rely: (i) as to matters involving the application of laws other than the laws of the United States and jurisdictions in which they are admitted, to the extent such counsel deems proper and to the extent specified in such opinion, if at all, upon an opinion or opinions (in form and substance reasonably satisfactory to the Representative) of other counsel reasonably acceptable to the Representative, familiar with the applicable laws; and (ii) as to matters of fact, to the extent they deem proper, on certificates or other written statements of officers of the Company and officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company; provided, that copies of any such statements or certificates shall be delivered to Representative's Counsel if requested.

(c) Comfort Letters.

(i) Comfort Letter. At the time this Agreement is executed, the Representative shall have received from the Auditor a cold comfort letter containing statements and information of the type customarily included in accountants' comfort letters with respect to the financial statements and certain financial information contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, addressed to the Representative and in form and substance satisfactory in all respects to the Representative and to the Auditor, dated as of the date of this Agreement.

(ii) Bring-Down Comfort Letter. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received from the Auditor a letter, dated as of the Closing Date or the Option Closing Date, as applicable, to the effect that the Auditor reaffirms the statements made in the letter furnished pursuant to Section 4(c)(i), except that the specified date referred to shall be a date not more than three (3) Business Days prior to the Closing Date or the Option Closing Date, as applicable.

(d) Officers' Certificates.

(i) Officers' Certificate. The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date, as applicable, of its President and Chief Executive Officer and its Chief Financial Officer stating (on behalf of the Company and not in an individual capacity) that (i) such officers have carefully examined the Registration Statement, the Pricing Disclosure Package, and the Prospectus and, to their knowledge, the Registration Statement and each amendment thereto, as of the Applicable Time and as of the Closing Date or Option Closing Date, as applicable, did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the Pricing Disclosure Package, as of the Applicable Time and as of the Closing Date or Option Closing Date, as applicable, the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date or Option Closing Date, as applicable, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus, (iii) to their knowledge after reasonable investigation, as of the Closing Date or Option Closing Date, as applicable, the representations and warranties of the Company in this Agreement are true and correct in all material respects (except for those representations and warranties qualified as to materiality, which shall be true and correct in all respects and except for those representations and warranties which refer to facts existing at a specific date, which shall be true and correct as of such date) and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date or Option Closing Date, as applicable, and (iv) there has not been, subsequent to the date of the most recent audited financial statements included in the Pricing Disclosure Package, any Material Adverse Change, or any change or development that, singularly or in the aggregate, would reasonably be expected to involve a Material Adverse Change, except as set forth in the Prospectus.

(ii) Secretary's Certificate. At each of the Closing Date or Option Closing Date, as applicable, the Representative shall have received a certificate of the Company signed by the Secretary of the Company, dated the Closing Date, or Option Closing Date, as applicable, certifying: (i) that each of the Charter and Bylaws is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) the good standing of the Company; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

(e) No Material Changes. Prior to and on each of the Closing Date or Option Closing Date, as applicable: (i) there shall have been no Material Adverse Change that, singularly or in the aggregate, would reasonably be expected to involve a Material Adverse Change, from the latest dates as of which such condition is set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (ii) no action, suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any Insider before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding would reasonably be expected to result in a Material Adverse Change, except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; and (iv) the Registration Statement, the Pricing Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations and shall conform in all material respects to the requirements of the Securities Act and the Securities Act Regulations, and neither the Registration Statement, the Pricing Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(f) Other Agreements to be Delivered. The Company has caused each of its officers and directors and certain stockholders to deliver to the Representative an executed Lock-Up Agreement, in a form substantially similar to that attached hereto as Exhibit A (the " Lock-Up Agreement"), prior to the execution of this Agreement. On the Closing Date, the Company shall have delivered to the Representative an executed copy of the Warrant Agreement.

(g) Additional Documents. At the Closing Date or Option Closing Date, as applicable, Representative's Counsel shall have been furnished with such documents and opinions as they may reasonably require for the purpose of enabling Representative's Counsel to deliver an opinion to the Underwriters, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Public Securities as herein contemplated shall be satisfactory in form and substance to the Representative and Representative's Counsel.

5. Indemnification.

(a) Indemnification of the Underwriters. The Company agrees to indemnify and hold harmless each Underwriter, its affiliates and each person controlling such Underwriter (within the meaning of Section 15 of the Securities Act), and the directors, officers, agents and employees of each Underwriter, its affiliates and each such controlling person (each Underwriter, and each such entity or person hereafter is referred to as an "Indemnified Person") from and against any losses (other than losses of profits), claims, damages, judgments, assessments, costs and other liabilities (collectively, the "Liabilities"), and shall reimburse each Indemnified Person for all fees and expenses (including the reasonable fees and expenses of counsel for the Indemnified Persons, except as otherwise expressly provided in this Agreement) (collectively, the "Expenses") and agrees to advance payment of such Expenses as they are incurred by an Indemnified Person in investigating, preparing, pursuing or defending any actions, whether or not any Indemnified Person is a party thereto, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (i) the Registration Statement, the Pricing Disclosure Package, the Preliminary Prospectus, or the Prospectus (as from time to time each may be amended and supplemented); (ii) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any "road show" or investor presentations made to investors by the Company (whether in person or electronically); or (iii) any application or other document or written communication (in this Section 5, collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Public Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, the Exchange or any other national securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon, and in conformity with, the Underwriters' Information.

(b) Procedure. Upon receipt by an Indemnified Person of notice of an action against such Indemnified Person with respect to which indemnity may reasonably be expected to be sought under this Agreement, such Indemnified Person shall promptly notify the Company in writing; provided that failure by any Indemnified Person so to notify the Company shall not relieve the Company from any obligation or liability which the Company may have on account of this Section 5 or otherwise to such Indemnified Person, except to the extent the Company is materially prejudiced as a proximate result of such failure. An Indemnified Person shall have the right to require that the Company assume the defense of any such action (including the employment of counsel designated by the Company and reasonably satisfactory to the Representative). Any Indemnified Person shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company has failed promptly to assume the defense and employ counsel reasonably satisfactory to the Representative for the benefit of the Underwriters and the other Indemnified Persons or (ii) such Indemnified Person shall have been advised that in the opinion of counsel that there is an actual or potential conflict of interest that prevents (or makes it imprudent for) the counsel engaged by the Company for the purpose of representing the Indemnified Person, to represent both such Indemnified Person and any other person represented or proposed to be represented by such counsel. The Company shall not be liable for the fees and expenses of more than one separate counsel (together with local counsel), representing all Indemnified Persons who are parties to such action), which counsel (together with any local counsel) for the Indemnified Persons shall be selected by the Representative, subject to the Company's approval (which shall not be unreasonably withheld). The Company shall not be liable for any settlement of any action effected without its written consent (which shall not be unreasonably withheld). In addition, the Company shall not, without the prior written consent of the Underwriters, settle, compromise or consent to the entry of any judgment in or otherwise seek to terminate any pending or threatened action in respect of which advancement, reimbursement, indemnification or contribution may be sought hereunder (whether or not such Indemnified Person is a party thereto) unless such settlement, compromise, consent or termination (i) includes an unconditional release of that Indemnified Person from all Liabilities arising out of such action for which indemnification or contribution may be sought hereunder and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any Indemnified Person. The advancement, reimbursement, indemnification and contribution obligations of the Company required hereby shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as every Liability and Expense is incurred and is due and payable, and in such amounts as fully satisfy each and every Liability and Expense as it is incurred (and in no event later than 30 days following the date of any invoice therefore); provided, however, that the Indemnified Persons shall repay such amounts to the extent it ultimately is determined that such persons are not entitled to indemnification hereunder.

(c) Indemnification of the Company. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, its officers, employees and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all Liabilities, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, the Underwriters' Information. In case any action shall be brought against the Company or any other person so indemnified based on any Preliminary Prospectus, the Registration Statement, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, and in respect of which indemnity may be sought against any Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the several Underwriters by the provisions of Section 5(b). The Company agrees promptly to notify the Representative of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Public Securities or in connection with the Registration Statement, the Pricing Disclosure Package, or the Prospectus; provided that failure by the Company so to notify the Representative shall not relieve any Underwriter from any obligation or liability which such Underwriter may have on account of this Section 5 or otherwise to the Company, except to the extent such Underwriter is materially prejudiced as a proximate result of such failure.

(d) Contribution. If the indemnification provided for in this Section 5 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 5(a) or 5(c) in respect of any Liabilities and Expenses referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such Liabilities and Expenses, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and each of the Underwriters, on the other hand, from the Offering, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other hand, in connection with the matters as to which such Liabilities or Expenses relate, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, with respect to such Offering shall be deemed to be in the same proportion as the total proceeds from the Offering purchased under this Agreement (after deducting all underwriting discounts, commissions and other fees but before deducting expenses) received by the Company bear to the total underwriting discount, fees and commissions actually received by the Underwriters in connection with the Offering, in each case as set forth in the table on the cover page of the Prospectus. The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Underwriters, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such untrue statement, omission, act or failure to act; provided that the parties hereto agree that the written information furnished to the Company through the Representative by or on behalf of any Underwriter for use in any Preliminary Prospectus, any Registration Statement or the Prospectus, or in any amendment or supplement thereto, consists solely of the Underwriters' Information. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take into account the equitable considerations referred to above in this subsection (d). Notwithstanding the above, no person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the Securities Act shall be entitled to contribution from a party who was not guilty of fraudulent misrepresentation.

(e) Survival. The advancement, reimbursement, indemnity and contribution obligations set forth in this Section 5 shall remain in full force and effect regardless of any termination of, or the completion of any Indemnified Person's services under or in connection with, this Agreement. Each Indemnified Person is an intended third-party beneficiary of this Section 5, and has the right to enforce the provisions of Section 5 as if he/she/it was a party to this Agreement.

6. Default by an Underwriter.

(a) Default Not Exceeding 10% of Public Securities. If any Underwriter or Underwriters shall default in its or their obligations to purchase the Firm Securities, and if the number of the Firm Securities with respect to which such default relates does not exceed in the aggregate 10% of the number of Firm Securities that all Underwriters have agreed to purchase hereunder, then such Firm Securities to which the default relates shall be purchased by the non-defaulting Underwriters in proportion to their respective commitments hereunder.

(b) Default Exceeding 10% of Public Securities. In the event that the default addressed in Section 6(a) relates to more than 10% of the Firm Securities, the Representative may in its discretion arrange for itself or for another party or parties to purchase such Firm Securities to which such default relates on the terms contained herein. If, within thirty six (36) hours after such default relating to more than 10% of the Firm Securities, the Representative does not arrange for the purchase of such Firm Securities, then the Company shall be entitled to a further period of thirty six (36) hours within which to procure another party or parties satisfactory to the Representative to purchase said Firm Securities on such terms. In the event that neither the Representative nor the Company arrange for the purchase of the Firm Securities to which a default relates as provided in this Section 6, this Agreement will automatically be terminated by the Representative or the Company without liability on the part of the Company (except as provided in Sections 3(f) and 5 hereof) or the several Underwriters (except as provided in Section 5 hereof); provided that if any such default occurs with respect to any Option Shares, this Agreement will not terminate in respect of the Firm Securities; and provided, further, that nothing herein shall relieve a defaulting Underwriter of its liability, if any, to the other Underwriters and to the Company for damages occasioned by its default hereunder.

(c) Postponement of Closing Date. In the event that the Firm Securities to which the default relates are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, the Representative or the Company shall have the right to postpone the Closing Date for a reasonable period, but not in any event exceeding seven (7) Business Days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Pricing Disclosure Package or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus that in the opinion of counsel for the Underwriter may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any party substituted under this Section 6 with like effect as if it had originally been a party to this Agreement with respect to such Securities.

7. Additional Covenants.

(a) Prohibition on Press Releases and Public Announcements. The Company shall not issue press releases or engage in any other publicity, without the Representative's prior written consent (such consent not to be unreasonably withheld), for a period ending at 5:00 p.m., Eastern Time, on the first (1st) Business Day following the forty-fifth (45th) day after the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business or such press release or communication is required by law.

(b) Right of First Refusal. During the period ending 12 months after the Closing Date, if and only if the closing of the purchase of the Firm Securities hereunder actually occurs, the Company grants the Representative the right of first refusal to act as lead or joint-lead investment banker, lead or joint-lead book runner and/or lead or joint placement agent at the Representative's discretion, for each and every future public and private equity, equity-linked or debt (excluding commercial bank debt) offering, including all equity linked financings during such 12 month period, of the Company, or any successor to or subsidiary of the Company on terms customary to the Representative.

8. Effective Date of this Agreement and Termination Thereof.

(a) Effective Date. This Agreement shall become effective when both the Company and the Representative have executed the same and delivered counterparts of such signatures to the other party.

(b) Termination. The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in Representative's opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on the New York Stock Exchange or The Nasdaq Stock Market LLC shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other Government Entity having jurisdiction; or (iii) if the United States shall have become involved in a new war or a material increase in major hostilities; or (iv) if a banking moratorium has been declared by a New York State or federal authority; or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets; or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in Representative's opinion, make it inadvisable to proceed with the delivery of the Firm Securities; or (vii) if the Company is in material breach of its representations, warranties or covenants hereunder; or (viii) if the Representative shall have knowledge after the date hereof of such a Material Adverse Change in the conditions of the Company, or such adverse material change in general market conditions, in each case, as in the Representative's reasonable judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities. Section 5 of this Agreement shall survive any termination of this Agreement.

(c) Expenses. Notwithstanding anything to the contrary in this Agreement, except in the case of a default by the Underwriters pursuant to Section 6(b) above, in the event that this Agreement shall not be carried out for any reason whatsoever, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Representative its actual and accountable out-of-pocket expenses related to the transactions contemplated herein then due and payable and upon demand the Company shall pay the full amount thereof to the Representative (less amounts previously advanced to the Underwriters). Notwithstanding the foregoing, any advance received by the Representative will be reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(g)(4)(A).

(d) Indemnification. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Section 5 shall remain in full force and effect and shall not be in any way affected by, such election or termination or failure to carry out the terms of this Agreement or any part hereof.

(e) Representations, Warranties, Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company or (ii) delivery of and payment for the Public Securities.

9. Miscellaneous.

(a) Notices. All communications hereunder, except as herein otherwise specifically provided, shall be in writing and addressed to the other party at its address set forth below (or to such other address that the receiving party may designate from time to time in accordance with this Section 9(a)), and shall be deemed to have been given (a) three (3) days after mailing if sent by certified mail return receipt requested, (b) one (1) day after mailing if sent by receipted overnight carrier (i.e. Federal Express), provided that proof of delivery or rejection is obtained, or (c) when delivered if by hand or sent by email to the physical address or email address set forth below.

If to the Representative:

Dawson James Securities, Inc.
101 N. Federal Highway Suite 600
Boca Raton, Florida 33432
Email: [●]
Attention: [●]

With copies to (*which shall not constitute notice*):

ArentFox Schiff LLP
1717 K Street, NW
Washington, DC 20001
ralph.demartino@afslaw.com
Attention: Ralph V. De Martino

If to the Company:

Arch Therapeutics, Inc.
235 Walnut Street
Suite 6
Framingham, MA 01702
Email: [_____]
Attention: [_____]

With copies to (*which shall not constitute notice*):

Lowenstein Sandler LLP
One Lowenstein Drive
Roseland, NJ 07068
Email: [____]
Attention: [_____]

(b) Headings. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

(c) Amendment. This Agreement may only be amended by a written instrument executed by each of the parties hereto.

(d) Entire Agreement. This Agreement (together with the other agreements and documents being delivered pursuant to or in connection with this Agreement) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof and thereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof. Notwithstanding anything to the contrary set forth herein, it is understood and agreed by the parties hereto that all other terms and conditions of that certain engagement letter between the Company and Representative, dated as of February 21, 2023 shall remain in full force and effect.

(e) Binding Effect. This Agreement shall inure solely to the benefit of and shall be binding upon the Representative, the Underwriters, each Indemnified Person referred to in Section 5, the Company and the controlling persons, directors and officers referred to in Section 5 hereof, and their respective successors, legal representatives, heirs and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of securities from any of the Underwriters.

(f) Governing Law; Consent to Jurisdiction; Trial by Jury. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Agreement shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9(a) hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. THE COMPANY (ON ITS BEHALF AND, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ON BEHALF OF ITS STOCKHOLDERS AND AFFILIATES) AND EACH OF THE UNDERWRITERS HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

(g) Execution in Counterparts. This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Delivery of a signed counterpart of this Agreement by email/pdf transmission shall constitute valid and sufficient delivery thereof.

(h) Waiver, etc. The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

[*Signature Page Follows*]

Exhibit 1.1

[Signature Page]
Underwriting Agreement

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space below.

Very truly yours,

Arch therapeutics, Inc.

By: _____
Name:
Title:

Confirmed as of the date first written above
mentioned, on behalf of itself and as
Representative of the several Underwriters
named on Schedule 1 hereto:

Dawson James Securities, Inc.

By: _____
Name:
Title:

Exhibit 1.1

SCHEDULE 1

Underwriter	Total Number of Firm Securities to be Purchased
Dawson James Securities, Inc.	[●]
	[●]
Total:	[●]

SCHEDULE 2

Pricing Information

Number of Firm Shares: [●]

Number of Firm Warrants: [●] Warrants

Number of Option Shares: [●]

Number of Option Warrants: [●] Warrants

Public Offering Price per one Firm Share and one Warrant: $[●]

Underwriting Discount per one Firm Share and one Warrant: $[●] (8.0%)

Price per Option Share: $[●]

Underwriting Discount per Option Share: $[●]

Price per Option Warrant: $0.01

Underwriting Discount per Option Warrant: $0.0092 (8.0%)

EXHIBIT A

Form of Lock-Up Agreement

Exhibit 4.2

COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____ Initial Exercise Date: September [__], 2023
CUSIP:

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, CEDE & CO. or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on September [__], 2028 (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee ("DTC") shall initially be the sole registered holder of this Warrant, subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Warrant Agency Agreement" means that certain warrant agency agreement, dated on or about the Initial Exercise Date, between the Company and the Warrant Agent.

"Warrant Agent" means the Transfer Agent and any successor warrant agent of the Company.

"Warrants" means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Warrant Agent of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Warrant Agent until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Warrant Agent for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Warrant Agent. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Notwithstanding the foregoing in this Section 2(a), a holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2(a) by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be $[___], subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESERVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Company . Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. If this Warrant is not held in global form through DTC (or any successor depositary), this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company and the Warrant Agent may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at Arch Therapeutics, Inc., 235 Walnut Street, Suite 6, Framingham, MA 01702, Attention: CEO, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder or the beneficial owner of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

o) Warrant Agency Agreement. If this Warrant is held in global form through DTC (or any successor depositary), this Warrant is issued subject to the Warrant Agency Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agency Agreement, the provisions of this Warrant shall govern and be controlling.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.
By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

Exhibit 4.3

PRE-FUNDED COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____ Initial Exercise Date: September [__], 2023
CUSIP:

THIS PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and until this Warrant is exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange, QTCQB or QTCQX (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of $0.0001 per Warrant Share, was pre-funded to the Company on or prior to the Issue Date and, consequently, no additional consideration (other than the nominal exercise price of $0.0001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be $0.0001, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESERVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at Arch Therapeutics, Inc., 235 Walnut Street, Suite 6, Framingham, MA 01702, Attention: CEO, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder or the beneficial owner of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

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(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By: _____

Name:

Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

PRE-FUNDED COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: [__], 2023
Initial Exercise Date: [__], 2023

THIS PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and until this Warrant is exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated October [__], 2023, among the Company and the purchasers signatory thereto:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange, QTCQB or QTCQX (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of $0.001 per Warrant Share, was pre-funded to the Company on or prior to the Issue Date and, consequently, no additional consideration (other than the nominal exercise price of $0.001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be $0.001, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESERVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement. .

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: _____, 2023
Initial Exercise Date: _____, 2023

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on [__], 2028 (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated _____, 2023:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be $[4.00[1]], subject to adjustment hereunder (the "Exercise Price").

[1] NTD: Ex. price is $4.00 post the expected 8-for-1 reverse stock split to occur at the time of the offering, immediately prior to the issuance of this warrant.

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the resale of the Warrant Shares by the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of the Warrant. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by the Company by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESREVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable contemplated Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Company . Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

THE WARRANT AND WARRANT SHARES SHALL NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, OR HYPOTHECATED, OR BE THE SUBJECT OF ANY HEDGING, SHORT SALE, DERIVATIVE, PUT, OR CALL TRANSACTION THAT WOULD RESULT IN THE EFFECTIVE ECONOMIC DISPOSITION OF THE SECURITIES BY ANY PERSON FOR A PERIOD OF 180 DAYS IMMEDIATELY FOLLOWING THE COMMENCEMENT OF SALES OF THE OFFERING PURSUANT TO WHICH THE WARRANTS WERE ISSUED, EXCEPT AS PROVIDED IN FINRA RULE 5110(E)(2).

COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: _____, 2023
Initial Exercise Date: _____, 2024

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after [_____], 2024 (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on [__], 2028 (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. This Warrant is being issued pursuant to the Placement Agent Agreement between the Company and Dawson James Securities, Inc. dated [____], 2023 (the "PA Agreement"). Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated _____, 2023:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be $5.15625, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the resale of the Warrant Shares by the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of the Warrant. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by the Company by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESERVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable contemplated Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Company . Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Piggy-Back Registrations. If, at any time while this Warrant is outstanding, there is not an effective registration statement covering all of the Warrant Shares and the Company shall determine to prepare and file with the Commission a registration statement relating to an offering for its own account or the account of others under the Securities Act of any of its equity securities, other than on Form S-4 or Form S-8 (each as promulgated under the Securities Act) or their then equivalents relating to equity securities to be issued solely in connection with any acquisition of any entity or business or equity securities issuable in connection with the Company's share option or other employee benefit plans, then the Company shall deliver to each Holder a written notice of such determination and, if within fifteen days after the date of the delivery of such notice, any such Holder shall so request in writing, the Company shall include in such registration statement all or any part of such Warrant Shares such Holder requests to be registered; provided, however, that the Company shall not be required to register any Warrant Shares pursuant to this Section 4 that are eligible for resale pursuant to Rule 144 (without volume restrictions or current public information requirements) or that are the subject of a then effective registration statement that is available for resales or other dispositions by such Holder.

Section 5. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 5(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 5(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 6. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the PA Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the PA Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address:

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

TRUE-UP PRE-FUNDED COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: [__], 2023
Initial Exercise Date: [__][1], 2023

THIS TRUE-UP PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and until this Warrant is exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated October [__], 2023, among the Company and the purchasers signatory thereto:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

[1] Same as Issue Date.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange, QTCQB or QTCQX (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of $0.001 per Warrant Share, was pre-funded to the Company on or prior to the Issue Date and, consequently, no additional consideration (other than the nominal exercise price of $0.001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be $0.001, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESERVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement. .

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

NOTE CONVERSION PRE-FUNDED COMMON STOCK PURCHASE WARRANT
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: [__], 2023
Initial Exercise Date: [__][1], 2023

THIS NOTE CONVERSION PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and until this Warrant is exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the 'Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated October [__], 2023, among the Company and the purchasers signatory thereto:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

[1] Same as Issue Date

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange, QTCQB or QTCQX (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of $0.001 per Warrant Share, was pre-funded to the Company on or prior to the Issue Date and, consequently, no additional consideration (other than the nominal exercise price of $0.001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be $0.001, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESERVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement. .

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

Exhibit 4.12

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

UPLIST CONVERSION WARRANT TO PURCHASE COMMON STOCK
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: _____, 2023
Initial Exercise Date: _____, 2023

THIS UPLIST CONVERSION WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on [__], 2028 (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated _____, 2023:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be $[4.00[1]], subject to adjustment hereunder (the "Exercise Price").

[1] NTD: Ex. price is $4.00 post the expected 8-for-1 reverse stock split to occur at the time of the offering, immediately prior to the issuance of this warrant.

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the resale of the Warrant Shares by the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of the Warrant. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by the Company by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESREVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable contemplated Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Company . Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

Address:

Phone Number:
Email Address:
Dated: _____ __, _____
Holder's Signature: _____
Holder's Address: _____

_____
(Please Print)

_____
(Please Print)

_____

_____

Exhibit 4.13

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

REPLACEMENT WARRANT TO PURCHASE COMMON STOCK
ARCH THERAPEUTICS, INC.

Warrant Shares: _____

Issue Date: _____, 2023
Initial Exercise Date: _____, 2023

THIS REPLACEMENT WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on [__], 2028 (the "Termination Date") but not thereafter, to subscribe for and purchase from Arch Therapeutics, Inc., a Nevada corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated _____, 2023:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-268008).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Empire Stock Transfer, the current transfer agent of the Company, with a mailing address of [1859 Whitney Mesa Drive, Henderson, Nevada 89014], an email address of [_____], and a facsimile number of (___) [____], and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be $[4.00[1]], subject to adjustment hereunder (the "Exercise Price").

[1] NTD: Ex. price is $4.00 post the expected 8-for-1 reverse stock split to occur at the time of the offering, immediately prior to the issuance of this warrant.

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the resale of the Warrant Shares by the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of the Warrant. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

If at any time following the Initial Exercise Date there is no effective registration statement registering, or no currently prospectus available for, the resale of the Warrant Shares by the Holder, then, for each full thirty (30) day period following the Initial Exercise Date, the amount of Warrant Shares of Holder shall be automatically increased by two percent (2%) over the Warrant Shares which are held by the Holder as on such dates, not to exceed in the aggregate an additional twenty-four percent (24%).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Placement Agency Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by the Company by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Company shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61 st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) RESREVED.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable contemplated Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Company . Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7g of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ARCH THERAPEUTICS, INC.

By:_____
Name:
Title:

NOTICE OF EXERCISE

TO: ARCH THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

(4) Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

Address:

Phone Number:
Email Address:
Dated: _____ __, _____
Holder's Signature: _____
Holder's Address: _____

_____
(Please Print)

_____
(Please Print)

_____

_____

Exhibit 5.1

November 8, 2023

Board of Directors
Arch Therapeutics, Inc.
235 Walnut Street, Suite 6
Framingham, MA 01702

Ladies and Gentlemen:

We have acted as special Nevada counsel to Arch Therapeutics, Inc., a Nevada corporation (the "Company"), in connection with the Registration Statement on Form S-1 initially filed by the Company on October 26, 2022 (File No. 333-268008), as amended by prior amendments thereto and by Amendment No. 4 filed on the date hereof (including any preliminary prospectus and prospectus which is a part thereof, and as amended, the "Registration Statement"), with the Securities and Exchange Commission (the "Commission"), under the Securities Act of 1933, as amended (the "Act").

The Registration Statement relates to the offering and sale of shares of the Company's common stock, par value $0.001 per share ("Common Stock") by:

(A) the selling security stockholders, as described in the Resale Prospectus (defined below), of up to 46,578,524 shares of Common Stock (after the planned 8-for-1 reverse stock split as described in the Registration Statement, the "Assumed Reverse Split"), which include:

i. 2,526 shares of Common Stock (the "Inducement Shares") issued to selling stockholders in the second and third closing of the Company's private placement that the Company completed on January 18, 2023, and May 15, 2023, respectively (the "2022 Private Placement Financing"), 418,040 shares of Common Stock (the "Bridge Shares") issued in the Company's private placement that the Company completed on July 7, 2023 (the "2023 Bridge Financing"), and 8,224,341 shares of Common Stock (the "True-Up Shares") issuable in connection with the 2023 Bridge Financing in lieu of True-Up Pre-Funded Warrants (as defined below);

ii. up to 1,567,127 shares of Common Stock (the "Conversion Shares") issuable to selling stockholders upon conversion of the Company's convertible notes issued in the Company's 2022 Private Placement Financing at a conversion price of $4.00 per share;

iii. up to 783,564 shares of Common Stock (the "Automatic Conversion Shares") issuable to selling stockholders upon conversion of the Company's convertible notes issued in the 2022 Private Placement Financing upon the Automatic Conversion (as defined in the Resale Prospectus);

iv. up to 33,671 shares of Common Stock (the "2022 Warrant Shares") issuable to selling stockholders upon exercise, at an exercise price of $4.00 per share, of the Company's warrants (the "2022 Warrants") issued in the second and third closing of the Company's 2022 Private Placement Financing;

v. up to 783,564 shares of Common Stock ("2022 Note Conversion Pre-Funded Warrant Shares") issuable to the selling stockholders upon exercise, at an exercise price of $0.001 per share, of the Company's pre-funded warrants (the "2022 Note Conversion Pre-Funded Warrants") issuable upon the Automatic Conversion;

vi. up to 821 shares of Common Stock (the "2022 Placement Agent Warrant Shares") issuable to the selling stockholders upon exercise, at an exercise price of $80.48 per share, of placement agent warrants issued in the 2022 Private Placement Financing (the "2022 Placement Agent Warrants");

vii. up to 2,349,826 shares of Common Stock (the "Common Warrant Shares") issuable to selling stockholders upon exercise, at an exercise price of $8.00 per share, of the Company's warrants (the "Common Warrants") issued in the 2023 Bridge Financing;

viii. up to 756,871 shares of Common Stock ("Bridge Pre-Funded Warrant Shares" and together with the Common Warrant Shares, the "Bridge Warrant Shares") issuable to the selling stockholders upon exercise, at an exercise price of $0.008 per share, of pre-funded warrants issued in the 2023 Bridge Financing (the "Bridge Pre-Funded Warrants" and together with the Common Warrants, the "Bridge Warrants");

ix. Up to 20,000,286 shares of Common Stock ("Uplist Conversion Warrant Shares") issuable to the selling stockholders upon exercise, at an exercise price of $4.00 per share, of the Company's warrants ("Uplist Conversion Warrants"), issuable upon the closing of an Uplist Transaction;

x. up to 8,224,341 shares of Common Stock ("True-Up Pre-Funded Warrant Shares") issuable to the selling stockholders upon exercise, at an exercise price of $0.001 per share, of pre-funded warrants issuable in connection with the 2023 Bridge Financing (the "True-Up Pre-Funded Warrants");

xi. up to 1,716,780 shares of Common Stock (the "Uplist PIPE Common Warrant Shares") issuable to selling stockholders upon exercise, at an exercise price of $4.00 per share, of the Company's warrants (the "Uplist PIPE Common Warrants issued in the Company's private placement that the Company completed on November 8, 2023 (the "Uplist PIPE");

xii. up to 1,716,780 shares of Common Stock ("Uplist PIPE Pre-Funded Warrant Shares", and with the Inducement Shares, the Bridge Shares, the True-Up Shares, the Conversion Shares, the Automatic Conversion Shares, the 2022 Warrant Shares, the 2022 Note Conversion Pre-Funded Warrant Shares, the 2022 Placement Agent Warrant Shares, the Bridge Warrant Shares and the Uplist Conversion Warrant Shares, Uplist PIPE Common Warrant Shares, and True-Up Pre-Funded Warrant Shares, the "Resale Shares") issuable to the selling stockholders upon exercise, at an exercise price of $0.001 per share, of pre-funded warrants issued in the Uplist PIPE (the "Uplist PIPE Pre-Funded Warrants" and together with the Uplist PIPE Common Warrants, the "Uplist PIPE Warrants"); and

(B) the Company, as described in the Company Prospectus (defined below), of (after the Assumed Reverse Split):

i. up to 1,030,303 units ("New Units") consisting of 1,030,303 shares of Common Stock ("New Shares") and investor warrants ("New Investor Warrants") to purchase up to 1,030,303 shares of Common Stock (the shares of Common Stock issuable upon exercise of the New Investor Warrants are referred to as the "New Investor Warrant Shares");

ii. up to 1,030,303 pre-funded units ("New Pre-Funded Units") consisting of pre-funded warrants ("New Pre-funded Warrants") to purchase up to 1,030,303 Shares of Common Stock (the shares of Common Stock issuable upon exercise of the New Pre-Funded Warrants are referred to as the "New Pre-Funded Warrant Shares") and New Investor Warrants to purchase up to 1,030,303 New Investor Warrant Shares; and

iii. up to 154,545 shares (the "New Option Shares") of Common Stock and/or warrants to purchase up to 154,545 shares of Common Stock, in the same form as the New Investor Warrants (the "New Option Warrants") to be sold upon exercise of the option granted to the Underwriter (the shares of Common Stock issuable upon exercise of the New Option Warrants are referred to as the "New Option Warrant Shares" and with the New Investor Warrant Shares, the New Pre-Funded Warrant Shares, New Underwriter Warrant Shares, and the New Option Shares, the "New Offered Shares").

The Preliminary Prospectus contained in the Registration Statement relating to the offering and resale by the selling stockholders of securities described in (A) above is referred to herein as the "Resale Prospectus" and the Preliminary Prospectus contained in the Registration Statement relating to the offer and sale by the Company of the securities described in (B) above is referred to herein as the "Company Prospectus."

The New Units, the New Pre-Funded Units, the New Options Shares and the New Option Warrants, will be issued/sold pursuant to an Underwriting Agreement in the form attached to the Company Prospectus (the "Agreement"), between the Company and Dawson James Securities, Inc. ("Dawson" or the "Underwriter").

Each warrant referred to in (A) and (B) above shall be referred to herein as a "Warrant" and collectively as the "Warrants." Each convertible note referred to in (A) above shall be referred to herein as a "Note" and collectively as the "Notes." The Resale Shares, the New Offered Shares, the Warrants, and the Notes are referred to herein each as a "Security" and together as the "Securities."

In connection with this opinion, we have examined originals or copies, certified or otherwise identified to our satisfaction, of: (i) the Articles of Incorporation of the Company, as amended through the date hereof (the "Articles of Incorporation"); (ii) the Bylaws of the Company, as amended through the date hereof (the "Bylaws"); (iii) the Warrants or forms of the Warrants to be issued, as applicable, (iv) certain resolutions of the Board of Directors of the Company or a duly constituted and acting committee thereof (such Board of Directors or committee thereof being hereinafter collectively referred to as, the "Board"), relating to the issuance, sale and registration, as applicable, of the Securities, and the Assumed Reverse Split (each, a "Resolution" and collectively, the "Resolutions"); (v) the form of Agreement; and (vi) the Registration Statement. In addition, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of certain other corporate records, documents, instruments and certificates of public officials and of the Company, and we have made such inquiries of officers of the Company and public officials and considered such questions of law as we have deemed necessary for purposes of rendering the opinions set forth herein. We have also relied upon the statements, representations and warranties of the Company contained in the Agreement and the Registration Statement. In rendering our opinion, we have made the assumptions set forth in subsequent portions of this opinion letter and such other assumptions that are customary in opinion letters of this kind. We have not verified these assumptions.

In connection with this opinion, we have assumed the genuineness of all signatures, the legal capacity of natural persons, and the authenticity of all items submitted to us as originals and the conformity with originals of all items submitted to us as copies. In making our examination of documents executed by parties other than the Company, we have assumed that each other party has the power and authority to execute and deliver, and to perform and observe the provisions of, such documents and has duly authorized, executed and delivered such documents, and that such documents constitute the legal, valid and binding obligations of each such party, including the Company. With respect to certain factual matters, we have relied upon certificates of officers of the Company.

We have further assumed that prior to issuance of the Securities, the Board has approved, in conformity with the Articles of Incorporation and Bylaws, (a) the pricing of each Security; (b) the terms of the Agreement, the Securities; and (c) the number of New Offered Shares to be issued. We have assumed that the Company has reserved, and will continue to maintain reserved, a sufficient number of shares of its duly authorized, but unissued, Common Stock as is necessary to provide for the issuance of the Resale Shares and the New Offered Shares that are to be issued upon the exercise of the applicable Warrant and the conversion of any applicable Note. Additionally, we have assumed that the Assumed Reverse Split has been duly authorized by the Company, and has been effectuated by all necessary filings with the Secretary of State of the State of Nevada.

We have also assumed that the Agreement, the Warrants, the Resale Shares, the New Offered Shares, and the issuance and sale of the Securities by the Company did not, and will not, in each case, violate or constitute a default or breach under: (i) any agreement or instrument to which the Company or its properties was or is subject; (ii) any law, rule or regulation to which the Company was or is subject; (iii) any judicial or regulatory order or decree of any governmental authority; or (iv) any consent, approval, license, authorization or validation of, or filing, recording or registration with any governmental authority.

Finally, we have assumed that: (i) the Registration Statement and any amendments thereto will have become effective under the Act and comply with all applicable laws at the time the Securities are offered or issued as contemplated by the Registration Statement; (ii) an appropriate prospectus supplement, free writing prospectus or term sheet relating to the Securities offered thereby will be prepared and filed with the Commission in compliance with the Act and will comply with all applicable laws at the time the Securities are offered or issued as contemplated by the Registration Statement; and (iii) all Securities will be issued and sold in compliance with the applicable provisions of the Act and the securities or blue sky laws of various states and in the manner stated in the Registration Statement and the applicable prospectus supplement, free writing prospectus or term sheet.

Based upon, subject to and limited by the foregoing and the qualifications set forth in subsequent portions of this opinion letter, as of the date hereof, we are of the opinion that:

1. The Inducement Shares, the Bridge Shares, and the True-Up Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and are validly issued, fully paid and non-assessable.

2. The Conversion Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Conversion Shares are issued to the selling stockholders in accordance with the terms and conditions of the applicable Note, as amended, and the applicable Resolution, the Conversion Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the Conversion Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

3. The Automatic Conversion Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Automatic Conversion Shares are issued to the selling stockholders in accordance with the terms and conditions of the applicable Note, as amended, and the applicable Resolution, the Automatic Conversion Shares will be validly issued, fully paid and non-assessable, upon the Automatic Conversion and when stock certificates or book-entry positions representing the Automatic Conversion Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

4. The 2022 Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the 2022 Warrant Shares are issued in accordance with the terms and conditions of the 2022 Warrants (including the due payment of any exercise price therefore specified in the 2022 Warrants), and the applicable Resolution, the 2022 Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the 2022 Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

5. The 2022 Note Conversion Pre-Funded Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the 2022 Note Conversion Pre-Funded Warrant Shares are issued in accordance with the terms and conditions of the 2022 Note Conversion Pre-Funded Warrants (including the due payment of any exercise price therefore specified in the 2022 Note Conversion Pre-Funded Warrants), and the applicable Resolution, the 2022 Note Conversion Pre-Funded Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the 2022 Note Conversion Pre-Funded Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

6. The 2022 Placement Agent Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the 2022 Placement Agent Warrant Shares are issued in accordance with the terms and conditions of the 2022 Placement Agent Warrants (including the due payment of any exercise price therefore specified in the 2022 Placement Agent Warrants), and the applicable Resolution, the 2022 Placement Agent Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the 2022 Placement Agent Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

7. The Common Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Common Warrant Shares are issued in accordance with the terms and conditions of the Common Warrants (including the due payment of any exercise price therefore specified in the Common Warrants), the Common Warrant Shares will be validly issued, and the applicable Resolution, fully paid and non-assessable, when stock certificates or book-entry positions representing the Common Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

8. The Bridge Pre-Funded Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Bridge Pre-Funded Warrant Shares are issued in accordance with the terms and conditions of the Bridge Pre-Funded Warrants (including the due payment of any exercise price therefore specified in the Bridge Pre-Funded Warrants), and the applicable Resolution, the Bridge Pre-Funded Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the Bridge Pre-Funded Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

9. The Uplist Conversion Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Uplist Conversion Warrant Shares are issued in accordance with the terms and conditions of the Uplist Conversion Warrants (including the due payment of any exercise price therefore specified in the Uplist Conversion Warrants), and the applicable Resolution, the Uplist Conversion Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the Uplist Conversion Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

10. The True-Up Pre-Funded Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the True-Up Pre-Funded Warrant Shares are issued in accordance with the terms and conditions of the True-Up Pre-Funded Warrants (including the due payment of any exercise price therefore specified in the True-Up Pre-Funded Warrants), and the applicable Resolution, the True-Up Pre-Funded Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the True-Up Pre-Funded Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

11. The Uplist PIPE Common Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Uplist PIPE Common Warrant Shares are issued in accordance with the terms and conditions of the Uplist PIPE Common Warrants (including the due payment of any exercise price therefore specified in the Uplist PIPE Common Warrants), and the applicable Resolution, the Uplist PIPE Common Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the Uplist PIPE Common Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

12. The Uplist PIPE Pre-Funded Warrant Shares to be sold by the selling stockholders pursuant to the Registration Statement and the Resale Prospectus have been duly authorized and when the Uplist PIPE Pre-Funded Warrant Shares are issued in accordance with the terms and conditions of the Uplist PIPE Pre-Funded Warrants (including the due payment of any exercise price therefore specified in the Uplist PIPE Pre-Funded Warrants), and the applicable Resolution, the Uplist PIPE Pre-Funded Warrant Shares will be validly issued, fully paid and non-assessable, when stock certificates or book-entry positions representing the Uplist PIPE Pre-Funded Warrant Shares, have been duly executed, registered in the books and records of the Company and delivered, as applicable.

13. When issued and paid for in accordance with the terms of the Registration Statement, the applicable Resolution, and the Agreement, and when stock certificates or book entry positions representing shares of the Common Stock constituting the New Shares and the New Option Shares have been duly executed, registered in the books and records of the Company, or delivered, as applicable, the New Shares and the Option Shares will be validly issued, fully paid and nonassessable.

14. When issued and paid for in accordance with the terms of the Registration Statement, the applicable Resolution, and the Agreement, the New Investor Warrants, the New Pre-Funded Warrants, and the New Option Warrants will be validly issued.

15. When issued and paid for in accordance with the terms of the applicable Resolution and the New Investor Warrants (including the due payment of any exercise price therefore specified in the New Investor Warrants), and when stock certificates or book entry positions representing the New Investor Warrant Shares have been duly executed, registered in the books and records of the Company, or delivered, as applicable, the New Investor Warrant Shares will be validly issued, fully paid and nonassessable.

16. When issued and paid for in accordance with the terms of the applicable Resolution and the New Pre-Funded Warrants (including the due payment of any exercise price therefore specified in the New Pre-Funded Warrants), and when stock certificates or book entry positions representing the New Pre-Funded Warrant Shares have been duly executed, registered in the books and records of the Company, or delivered, as applicable, the New Pre-Funded Warrant Shares will be validly issued, fully paid and nonassessable.

17. When issued and paid for in accordance with the terms of the applicable Resolution and the New Option Warrants (including the due payment of any exercise price therefore specified in the New Option Warrants), and when stock certificates or book entry positions representing the New Option Warrant Shares have been duly executed, registered in the books and records of the Company, or delivered, as applicable, the New Option Warrant Shares will be validly issued, fully paid and nonassessable.

We are qualified to practice law in the State of Nevada. The opinions set forth herein are expressly limited to and based exclusively on the general corporate laws of the State of Nevada, and we do not purport to be experts on, or to express any opinion with respect to the applicability or effect of, the laws of any other jurisdiction. We express no opinion herein concerning, and we assume no responsibility as to the laws or judicial decisions related to, or any orders, consents or other authorizations or approvals as may be required by, any federal laws, rules or regulations, including, without limitation, any federal securities or bankruptcy laws, rules or regulations, any state securities or "blue sky" laws, rules or regulations or any state laws regarding fraudulent transfers. Our opinion is rendered as of the date hereof, and we assume no obligation to advise you of changes in law or fact (or the effect thereof on the opinions expressed herein) that hereafter may come to our attention.

This opinion is issued in the State of Nevada. By issuing this opinion, McDonald Carano LLP (i) shall not be deemed to be transacting business in any other state or jurisdiction other than the State of Nevada and (ii) does not consent to the jurisdiction of any state other than the State of Nevada. Any claim or cause of action arising out of the opinions expressed herein must be brought in the State of Nevada. Your acceptance of this opinion shall constitute your agreement to the foregoing.

We hereby consent to the filing of this opinion as part of the Registration Statement and to the reference to our firm therein under the caption “Legal Matters.” In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Sincerely,

/s/ MCDONALD CARANO LLP

MCDONALD CARANO LLP

Exhibit 5.2

November 8, 2023

Arch Therapeutics, Inc.
235 Walnut St., Suite 6
Framingham, MA 01702

Ladies and Gentlemen:

We have acted as counsel to Arch Therapeutics, Inc., a Nevada corporation (the "**Company**"), in connection with the proposed sale and issuance of (A) either (i) units consisting of (a) up to $4,250,000 of shares (the "**Offered Shares**"), of the Company's common stock, par value $0.001 per share (the "**Common Stock**"), and (b) up to $4,250,000 of warrants (the "**Investor Warrants**") to purchase shares of Common Stock (the shares of Common Stock issuable upon exercise of the Warrants are referred to as the "**Investor Warrant Shares**") or (ii) in lieu of such units, pre-funded units consisting of (a) up to $4,250,000 of pre-funded warrants (the "**Pre-Funded Warrants**") to purchase shares of Common Stock (the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants are referred to as the "**Pre-Funded Warrant Shares**") and (b) up to $4,250,000 of Investor Warrants to purchase Investor Warrant Shares, and (B) up to $637,500 of shares (the "**Option Shares**") of Common Stock and/or warrants to purchase up to $637,500 of shares of Common Stock, in the same form as the Investor Warrants (the "**Option Warrants**") to be sold upon exercise of the option granted to the underwriters (the shares of Common Stock issuable upon exercise of the Option Warrants are referred to as the "**Option Warrant Shares**"), pursuant to the Registration Statement on Form S-1 (File No. 333-268008), as amended by Amendment No. 1, Amendment No. 2 and Amendment No. 3 to the Registration Statement (as amended, the "**Registration Statement**"), filed by the Company with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Securities Act**"), and the rules and regulations promulgated thereunder, together with the prospectus contained therein (the "**Prospectus**"). The Offered Shares, the Investor Warrants, the Pre-Funded Warrants, the Option Shares and the Option Warrants are to be sold pursuant to an Underwriting Agreement (the "**Agreement**") between the Company and Dawson James Securities, Inc., as the representative of the several underwriters.

As counsel to the Company in connection with the proposed sale and issuance of the above-referenced Offered Shares, the Option Shares, the Investor Warrants, the Investor Warrant Shares, the Pre-Funded Warrants, the Pre-Funded Warrant Shares, the Option Warrants and the Option Warrant Shares, we have reviewed the Registration Statement, Prospectus and the respective exhibits thereto (including the Form of Underwriting Agreement, Form of Investor Warrant, and the Form of Pre-Funded Warrant). We have also reviewed such corporate documents and records of the Company, such certificates of public officials and officers of the Company and such other matters as we have deemed necessary or appropriate for purposes of this opinion. In our examination, we have assumed: (i) the authenticity of original documents and the genuineness of all signatures; (ii) the conformity to the originals of all documents submitted to us as copies; (iii) the truth, accuracy and completeness of the information, representations and warranties contained in the instruments, documents, certificates and records we have reviewed; (iv) that, as set forth in a separate opinion delivered to the Company on the date hereof by McDonald Carano LLP, special Nevada counsel to the Company, the Investor Warrants, the Pre-Funded Warrants and the Option Warrants have been duly authorized and validly issued; and (v) the legal capacity for all purposes relevant hereto of all natural persons and, with respect to all parties to agreements or instruments relevant hereto other than the Company, that such parties had the requisite power and authority (corporate or otherwise) to execute, deliver and perform such agreements or instruments, that such agreements or instruments have been duly authorized by all requisite action (corporate or otherwise), executed and delivered by such parties and that such agreements or instruments are the valid, binding and enforceable obligations of such parties. As to any facts material to the opinions expressed herein that were not independently established or verified, we have relied upon oral or written statements and representations of officers and other representatives of the Company.

Based on the foregoing, and subject to the assumptions, limitations and qualifications set forth herein, we are of the opinion that when the Investor Warrants, the Pre-Funded Warrants and Option Warrants are duly executed and delivered by the Company pursuant to the Agreement, such Investor Warrants, Pre-Funded Warrants, and Option Warrants will constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with their terms, subject to bankruptcy, insolvency or other similar laws affecting creditors' rights and to general equitable principles.

The opinion set forth above is subject to the following exceptions, limitations and qualifications: (i) the effect of bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws now or hereafter in effect relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, including without limitation, concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance or injunctive relief, regardless of whether enforcement is considered in a proceeding in equity or at law, and the discretion of the court before which any proceeding therefor may be brought; and (iii) the unenforceability under certain circumstances under law or court decisions of provisions providing for the indemnification of, or contribution to, a party with respect to liability where such indemnification or contribution is contrary to public policy. We express no opinion concerning the enforceability of any waiver of rights or defenses with respect to stay, extension or usury laws.

Our opinion is limited to the laws of New York. We express no opinion as to the effect of the law of any other jurisdiction. Our opinion is rendered as of the date hereof, and we assume no obligation to advise you of changes in law or fact (or the effect thereof on the opinions expressed herein) that hereafter may come to our attention. We advise you that matters of Nevada law are covered in the opinion of McDonald Carano LLP, special Nevada counsel for the Company, in Exhibit 5.1 to the Registration Statement.

We hereby consent to the inclusion of this opinion as Exhibit 5.2 to the Registration Statement and to the references to our firm therein and in the Prospectus under the caption “Legal Matters.” In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ *Lowenstein Sandler LLP*

Lowenstein Sandler LLP

AMENDMENT NO. 12
TO
SENIOR SECURED CONVERTIBLE PROMISSORY NOTE

This Amendment No. 12 (this "Amendment") to those certain Senior Secured Convertible Promissory Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023, and September 30, 2023 (as amended, the "First Notes"), issued by Arch Therapeutics, Inc., a Nevada corporation (the "Company"), to each Holder pursuant to that certain Securities Purchase Agreement, dated July 6, 2022, by and among the Company and the signatories thereto (the "Holders"), as amended on January 18, 2023 and as subsequently amended on May 15, 2023 (as amended, the "Securities Purchase Agreement") is made and entered into effective October [ ], 2023 by and among the Company and the Consenting Stockholders (as defined below). Capitalized terms used herein but not otherwise defined shall have the meanings ascribed to them in the Securities Purchase Agreement.

W I T N E S S E T H:

WHEREAS, the Company and the Consenting Stockholders desire to amend the First Notes to modify the terms of the Uplist (as defined below) repayment provision and extend the date for completion of the Uplist;

WHEREAS, pursuant to Section 4.3 of the First Notes and Section 7(e) of the Securities Purchase Agreement, the First Notes may be amended in a written instrument signed by the Company, the Lead Investor, and Holders which purchased at least 50% plus $1.00 of the Notes based on the initial Principal Amounts thereunder (the Lead Investor and such Holders, collectively the "Consenting Stockholders"); and

WHEREAS, the undersigned Holders constitute the Consenting Stockholders.

NOW, THEREFORE, in exchange for good and valuable consideration including, without limitation, the mutual covenants contained herein, the sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the parties hereby agree as follows:

1. Amendments to the First Notes.

1.1 Section 2.9 of the First Notes is hereby amended and restated as follows:

"Events Upon Uplist. While any portion of this Note is outstanding, in the event of the listing of the Common Stock on any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist"), simultaneously upon the closing of the offering conducted in conjunction with the Uplist (such offering, the "Uplist Transaction"), fifty percent (50%) of the then outstanding Principal Amount of this Note shall automatically convert (the "Automatic Conversion") into shares of Common Stock, with the Conversion Price for purposes of such Automatic Conversion being equal to $0.50 (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment) per share. Furthermore, the Borrower shall give the Holder at least five business days prior notice identifying the date of closing of the Uplist Transaction. Notwithstanding the foregoing, if the Holder owns more than one Convertible Note, unless it elects otherwise by notice to the Borrower prior the Automatic Conversion, the aggregate amount to be converted in the Automatic Conversion for all such Convertible Notes of the Holder combined will be allocated among such Convertible Notes in inverse order of when they were issued (such that the most recently issued Convertible Note is converted in full before any portion of the next-most-recently issued Convertible Note is converted, and so on until such aggregate amount to be converted has been converted).

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "Uplist Conversion Warrant") to purchase a number of shares of Common Stock equal to 51.0496 (subject to adjustment for stock splits (which, for the avoidance of doubt, in the case of a reverse stock split, would cause such number to decrease by dividing such number by the reverse stock split factor) and similar transactions occurring after the date of the execution of this Amendment) times the dollar amount under this Note that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price equal to $0.50 (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment) per share and shall otherwise be identical to the warrants (other than pre-funded warrants) issued pursuant to the Securities Purchase Agreement dated as of October [ ], 2023 (the "Uplist PIPE"). Upon the issuance of the Uplist Conversion Warrant to the Holder, all interest payable under this Note shall have been deemed paid, and no other interest shall be due or payable hereunder. The Company shall file, no later than sixty (60) days after the closing of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange (and the Company shall in turn offer to exchange), on a one-for-one basis, all outstanding Uplist Conversion Warrants and Other Warrants (as defined below) for newly issued warrants identical to the warrants that will be sold in the Uplist Transaction accompanying the shares of Common Stock (or share equivalents) being sold in the Uplist Transaction (except that the exercise price shall remain the same as the exercise price specified above), which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW." As used herein, " Other Warrants" means and includes: (x) all warrants issued pursuant to the Securities Purchase Agreement; (y) all warrants (other than pre-funded warrants) issued in the Uplist PIPE; and (z) the Exchange Warrants (as defined in the Bridge Purchase Agreement (as defined below)). Such registration statement and exchange offer shall allow each holder of a Uplist Conversion Warrant or Other Warrant to participate in such exchange and receive, no later than the earlier of (a) 60th calendar day following the date of the registration statement filing and (b) the fifth trading day following the date on which the Company is notified by the U.S. Securities and Exchange Commission that the registration statement will not be reviewed or is no longer subject to further review and comments, the new warrants in exchange as provided above, and such new warrants shall immediately be tradable on the Nasdaq Capital Market and the underlying shares issuable upon exercise of such warrants shall from and after such time be registered and fully tradable in each case to the same extent as the shares of Common Stock sold in the Uplist Transaction (and required current prospectuses shall be provided). Failure of the Borrower to comply with this provision, including the obligations in any of the previous three sentences, shall constitute an Event of Default. If after the Uplist Conversion Warrant is issued to the Holder the Borrower makes a prepayment of all or any portion of the remaining outstanding amount under this Note prior to the Maturity Date, the prepayment shall not be subject to the prepayment premiums set forth in Section 1.9 herein.

Upon the Automatic Conversion, a Holder shall receive pre-funded warrants (the "Note Conversion Pre-Funded Warrants") in lieu of shares of Common Stock otherwise issuable to the Holder to the extent that the sum of (1) the number of shares of Common Stock beneficially owned by the Holder and its affiliates (other than shares of Common Stock which may be deemed beneficially owned through the ownership of the unconverted portion of the Notes or the unexercised or unconverted portion of any other security of the Borrower subject to a limitation on conversion or exercise analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the Automatic Conversion with respect to which the determination of this sentence is being made, would result in beneficial ownership by the Holder and its affiliates of more than 4.99% (or 9.99% if elected in writing by the Holder prior to the date of the execution of this Amendment) of the outstanding shares of Common Stock. For purposes of the immediately preceding sentence, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act, and Regulations 13D-G thereunder, provided, that the limit may be waived by the Holder (up to a maximum of 9.99%) upon, at the election of the Holder, not less than 61 days' prior notice to the Borrower, and the provisions of the conversion limitation shall continue to apply until such 61st day (or such later date, as determined by the Holder, as may be specified in such notice of waiver). The Note Conversion Pre-Funded Warrants shall have a nominal exercise price of $0.000125 per share (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment), may be exercised on a cashless basis, shall be exercisable immediately upon issuance, shall contain a customary beneficial ownership limitation provision and shall otherwise be identical to the pre-funded warrants issued in the Uplist PIPE."

1.2 Section 4.15A of the First Notes is hereby amended and restated as follows:

"4.15A Future Raises. If any Uplist Conversion Warrants are issued, the Borrower shall not consummate any capital raising transactions (including but not limited to from the issuance of debt and/or equity securities) until the earlier of (a) the four-year anniversary of the date of the Securities Purchase Agreement (the "Bridge Purchase Agreement"), dated as of July 7, 2023, as amended, by and among the Company and the buyers signatory thereto, and (b) the first date on which all Holders hold less than 20% of the original amount of Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion (such earlier date, the "4.15A End Date"), in each case other than (i) the Uplist Transaction, (ii) any Permitted Equity Line Facility (as defined in the Bridge Purchase Agreement), and (iii) any transaction that is consented to in writing (with specific reference to this Section 4.15A) by the holders of Uplist Conversion Warrants then outstanding that at such time are exercisable (ignoring for such purposes any beneficial ownership limitation provisions therein) for a number of shares that is, in the aggregate, at least 50.1% of the total number of shares then issuable upon exercise of all such Uplist Conversion Warrants outstanding (ignoring for such purposes any beneficial ownership limitation provisions therein). The provisions of this Section 4.15A shall survive termination or payment in full of this Note and shall remain in effect through the 4.15A End Date."

1.3 The First Notes are hereby amended by deleting the words "by October 31, 2023" in Section 3.23 of the First Notes and replacing such words with the following sentence in substitution therefor:

"by November 15, 2023"

2. Miscellaneous.

2.1 The "First Note Amendment Termination Date" is hereby extended to November 15, 2023.

2.2 Except as expressly amended by this Amendment, the terms and provisions of the First Notes shall continue in full force and effect. No reference to this Amendment need be made in any instrument or document making reference to the First Notes; any reference to the First Notes in any such instrument or document shall be deemed a reference to the First Notes as amended hereby. The First Notes as amended hereby shall be binding upon the parties thereto and their respective assigns and successors.

2.3 This Amendment shall be governed by and construed in accordance with the laws of the State of Nevada as such laws are applied to agreements between parties in Nevada.

2.4 This Amendment may be executed in separate counterparts, each such counterpart being deemed to be an original instrument, and all such counterparts shall together constitute the same agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first written above.

ARCH THERAPEUTICS, INC.

By: _____
Name: Michael S. Abrams
Title: Chief Financial Officer

Signature Page to Amendment No. 12 to the First Notes

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first written above.

[ ]

By: _____
Name:
Title:

Signature Page to Amendment No. 12 to the First Notes

AMENDMENT NO. 12
TO
UNSECURED CONVERTIBLE PROMISSORY NOTE

This Amendment No. 12 (this "Amendment") to those certain Unsecured Convertible Promissory Notes, as amended on February 14, 2023, and as subsequently amended on March 10, 2023, March 15, 2023, April 15, 2023, May 15, 2023, June 15, 2023, July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023 and September 30, 2023 (as amended, the "Second Notes"), issued by Arch Therapeutics, Inc., a Nevada corporation (the "Company"), to certain Holders pursuant to that certain Securities Purchase Agreement, dated July 6, 2022, by and among the Company and the signatories thereto (the "Holders"), as amended on January 18, 2023 and as subsequently amended on May 15, 2023 (as amended, the "Securities Purchase Agreement") is made and entered into effective October [ ], 2023 by and among the Company and the Consenting Stockholders (as defined below). Capitalized terms used herein but not otherwise defined shall have the meanings ascribed to them in the Securities Purchase Agreement.

W I T N E S S E T H:

WHEREAS, the Company and the Consenting Stockholders desire to amend the Second Notes to modify the terms of the Uplist (as defined below) repayment provision and extend the date for completion of the Uplist;

WHEREAS, pursuant to Section 4.3 of the Second Notes and Section 7(e) of the Securities Purchase Agreement, the Second Notes may be amended in a written instrument signed by the Company, the Lead Investor, and Holders which purchased at least 50% plus $1.00 of the Notes based on the initial Principal Amounts thereunder (the Lead Investor and such Holders, collectively the "Consenting Stockholders"); and

WHEREAS, the undersigned Holders constitute the Consenting Stockholders.

NOW, THEREFORE, in exchange for good and valuable consideration including, without limitation, the mutual covenants contained herein, the sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the parties hereby agree as follows:

1. Amendments to the Second Notes.

1.1 Section 2.9 of the Second Notes is hereby amended and restated as follows:

"Events Upon Uplist. While any portion of this Note is outstanding, in the event of the listing of the Common Stock on any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist"), simultaneously upon the closing of the offering conducted in conjunction with the Uplist (such offering, the "Uplist Transaction"), fifty percent (50%) of the then outstanding Principal Amount of this Note shall automatically convert (the "Automatic Conversion") into shares of Common Stock, with the Conversion Price for purposes of such Automatic Conversion being equal to $0.50 (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment) per share. Furthermore, the Borrower shall give the Holder at least five business days prior notice identifying the date of closing of the Uplist Transaction. Notwithstanding the foregoing, if the Holder owns more than one Convertible Note, unless it elects otherwise by notice to the Borrower prior the Automatic Conversion, the aggregate amount to be converted in the Automatic Conversion for all such Convertible Notes of the Holder combined will be allocated among such Convertible Notes in inverse order of when they were issued (such that the most recently issued Convertible Note is converted in full before any portion of the next-most-recently issued Convertible Note is converted, and so on until such aggregate amount to be converted has been converted).

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "Uplist Conversion Warrant") to purchase a number of shares of Common Stock equal to 51.0496 (subject to adjustment for stock splits (which, for the avoidance of doubt, in the case of a reverse stock split, would cause such number to decrease by dividing such number by the reverse stock split factor) and similar transactions occurring after the date of the execution of this Amendment) times the dollar amount under this Note that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price equal to $0.50 (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment) per share and shall otherwise be identical to the warrants (other than pre-funded warrants) issued pursuant to the Securities Purchase Agreement dated as of October [ ], 2023 (the "Uplist PIPE"). Upon the issuance of the Uplist Conversion Warrant to the Holder, all interest payable under this Note shall have been deemed paid, and no other interest shall be due or payable hereunder. The Company shall file, no later than sixty (60) days after the closing of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange (and the Company shall in turn offer to exchange), on a one-for-one basis, all outstanding Uplist Conversion Warrants and Other Warrants (as defined below) for newly issued warrants identical to the warrants that will be sold in the Uplist Transaction accompanying the shares of Common Stock (or share equivalents) being sold in the Uplist Transaction (except that the exercise price shall remain the same as the exercise price specified above), which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW." As used herein, " Other Warrants" means and includes: (x) all warrants issued pursuant to the Securities Purchase Agreement; (y) all warrants (other than pre-funded warrants) issued in the Uplist PIPE; and (z) the Exchange Warrants (as defined in the Bridge Purchase Agreement (as defined below)). Such registration statement and exchange offer shall allow each holder of a Uplist Conversion Warrant or Other Warrant to participate in such exchange and receive, no later than the earlier of (a) 60th calendar day following the date of the registration statement filing and (b) the fifth trading day following the date on which the Company is notified by the U.S. Securities and Exchange Commission that the registration statement will not be reviewed or is no longer subject to further review and comments, the new warrants in exchange as provided above, and such new warrants shall immediately be tradable on the Nasdaq Capital Market and the underlying shares issuable upon exercise of such warrants shall from and after such time be registered and fully tradable in each case to the same extent as the shares of Common Stock sold in the Uplist Transaction (and required current prospectuses shall be provided). Failure of the Borrower to comply with this provision, including the obligations in any of the previous three sentences, shall constitute an Event of Default. If after the Uplist Conversion Warrant is issued to the Holder the Borrower makes a prepayment of all or any portion of the remaining outstanding amount under this Note prior to the Maturity Date, the prepayment shall not be subject to the prepayment premiums set forth in Section 1.9 herein.

Upon the Automatic Conversion, a Holder shall receive pre-funded warrants (the "Note Conversion Pre-Funded Warrants") in lieu of shares of Common Stock otherwise issuable to the Holder to the extent that the sum of (1) the number of shares of Common Stock beneficially owned by the Holder and its affiliates (other than shares of Common Stock which may be deemed beneficially owned through the ownership of the unconverted portion of the Notes or the unexercised or unconverted portion of any other security of the Borrower subject to a limitation on conversion or exercise analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the Automatic Conversion with respect to which the determination of this sentence is being made, would result in beneficial ownership by the Holder and its affiliates of more than 4.99% (or 9.99% if elected in writing by the Holder prior to the date of the execution of this Amendment) of the outstanding shares of Common Stock. For purposes of the immediately preceding sentence, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act, and Regulations 13D-G thereunder, provided, that the limit may be waived by the Holder (up to a maximum of 9.99%) upon, at the election of the Holder, not less than 61 days' prior notice to the Borrower, and the provisions of the conversion limitation shall continue to apply until such 61st day (or such later date, as determined by the Holder, as may be specified in such notice of waiver). The Note Conversion Pre-Funded Warrants shall have a nominal exercise price of $0.000125 per share (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment), may be exercised on a cashless basis, shall be exercisable immediately upon issuance, shall contain a customary beneficial ownership limitation provision and shall otherwise be identical to the pre-funded warrants issued in the Uplist PIPE."

1.2 Section 4.15A of the Second Notes is hereby amended and restated as follows:

"4.15A Future Raises. If any Uplist Conversion Warrants are issued, the Borrower shall not consummate any capital raising transactions (including but not limited to from the issuance of debt and/or equity securities) until the earlier of (a) the four-year anniversary of the date of the Securities Purchase Agreement (the "Bridge Purchase Agreement"), dated as of July 7, 2023, as amended, by and among the Company and the buyers signatory thereto, and (b) the first date on which all Holders hold less than 20% of the original amount of Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion (such earlier date, the "4.15A End Date"), in each case other than (i) the Uplist Transaction, (ii) any Permitted Equity Line Facility (as defined in the Bridge Purchase Agreement), and (iii) any transaction that is consented to in writing (with specific reference to this Section 4.15A) by the holders of Uplist Conversion Warrants then outstanding that at such time are exercisable (ignoring for such purposes any beneficial ownership limitation provisions therein) for a number of shares that is, in the aggregate, at least 50.1% of the total number of shares then issuable upon exercise of all such Uplist Conversion Warrants outstanding (ignoring for such purposes any beneficial ownership limitation provisions therein). The provisions of this Section 4.15A shall survive termination or payment in full of this Note and shall remain in effect through the 4.15A End Date."

1.3 The Second Notes are hereby amended by deleting the words "by October 31, 2023" in Section 3.23 of the Second Notes and replacing such words with the following in substitution therefor:

"by November 15, 2023"

2. Miscellaneous.

2.1 The "Second Note Amendment Termination Date" is hereby extended to November 15, 2023.

2.2 Except as expressly amended by this Amendment, the terms and provisions of the Second Notes shall continue in full force and effect. No reference to this Amendment need be made in any instrument or document making reference to the Second Notes; any reference to the Second Notes in any such instrument or document shall be deemed a reference to the Second Notes as amended hereby. The Second Notes as amended hereby shall be binding upon the parties thereto and their respective assigns and successors.

2.3 This Amendment shall be governed by and construed in accordance with the laws of the State of Nevada as such laws are applied to agreements between parties in Nevada.

2.4 This Amendment may be executed in separate counterparts, each such counterpart being deemed to be an original instrument, and all such counterparts shall together constitute the same agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first written above.

ARCH THERAPEUTICS, INC.

By: _____
Name: Michael S. Abrams
Title: Chief Financial Officer

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first written above.

[ ]

By: _____
Name:
Title:

Signature Page to Amendment No. 12 to the Second Notes

AMENDMENT NO. 7
TO
UNSECURED CONVERTIBLE PROMISSORY NOTE

This Amendment No. 7 (this "Amendment") to those certain Unsecured Convertible Promissory Notes, as amended on June 15, 2023, and as subsequently amended on July 1, 2023, July 7, 2023, July 31, 2023, August 30, 2023, and September 30, 2023 (as amended, the "Third Notes"), issued by Arch Therapeutics, Inc., a Nevada corporation (the "Company"), to each Holder pursuant to that certain Securities Purchase Agreement, dated July 6, 2022, by and among the Company and the signatories thereto (the "Holders"), as amended on January 18, 2023 and as subsequently amended on May 15, 2023 (as amended, the "Securities Purchase Agreement") is made and entered into effective October [ ], 2023 by and among the Company and the Consenting Stockholders (as defined below). Capitalized terms used herein but not otherwise defined shall have the meanings ascribed to them in the Securities Purchase Agreement.

W I T N E S S E T H:

WHEREAS, the Company and the Consenting Stockholders desire to amend the Third Notes to modify the terms of the Uplist (as defined below) repayment provision and extend the date for completion of the Uplist;

WHEREAS, pursuant to Section 4.3 of the Third Notes and Section 7(e) of the Securities Purchase Agreement, the Third Notes may be amended in a written instrument signed by the Company, the Lead Investor, and Holders which purchased at least 50% plus $1.00 of the Notes based on the initial Principal Amounts thereunder (the Lead Investor and such Holders, collectively the "Consenting Stockholders"); and

WHEREAS, the undersigned Holders constitute the Consenting Stockholders.

NOW, THEREFORE, in exchange for good and valuable consideration including, without limitation, the mutual covenants contained herein, the sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the parties hereby agree as follows:

1. Amendments to the Third Notes.

1.1 Section 2.9 of the Third Notes is hereby amended and restated as follows:

"Events Upon Uplist. While any portion of this Note is outstanding, in the event of the listing of the Common Stock on any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist"), simultaneously upon the closing of the offering conducted in conjunction with the Uplist (such offering, the "Uplist Transaction"), fifty percent (50%) of the then outstanding Principal Amount of this Note shall automatically convert (the "Automatic Conversion") into shares of Common Stock, with the Conversion Price for purposes of such Automatic Conversion being equal to $0.50 (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment) per share. Furthermore, the Borrower shall give the Holder at least five business days prior notice identifying the date of closing of the Uplist Transaction. Notwithstanding the foregoing, if the Holder owns more than one Convertible Note, unless it elects otherwise by notice to the Borrower prior the Automatic Conversion, the aggregate amount to be converted in the Automatic Conversion for all such Convertible Notes of the Holder combined will be allocated among such Convertible Notes in inverse order of when they were issued (such that the most recently issued Convertible Note is converted in full before any portion of the next-most-recently issued Convertible Note is converted, and so on until such aggregate amount to be converted has been converted).

In addition, upon the Automatic Conversion, the Holder shall receive a warrant (the "Uplist Conversion Warrant") to purchase a number of shares of Common Stock equal to 51.0496 (subject to adjustment for stock splits (which, for the avoidance of doubt, in the case of a reverse stock split, would cause such number to decrease by dividing such number by the reverse stock split factor) and similar transactions occurring after the date of the execution of this Amendment) times the dollar amount under this Note that was converted in the Automatic Conversion. The Uplist Conversion Warrant shall have an exercise price equal to $0.50 (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment) per share and shall otherwise be identical to the warrants (other than pre-funded warrants) issued pursuant to the Securities Purchase Agreement dated as of October [ ], 2023 (the "Uplist PIPE"). Upon the issuance of the Uplist Conversion Warrant to the Holder, all interest payable under this Note shall have been deemed paid, and no other interest shall be due or payable hereunder. The Company shall file, no later than sixty (60) days after the closing of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange (and the Company shall in turn offer to exchange), on a one-for-one basis, all outstanding Uplist Conversion Warrants and Other Warrants (as defined below) for newly issued warrants identical to the warrants that will be sold in the Uplist Transaction accompanying the shares of Common Stock (or share equivalents) being sold in the Uplist Transaction (except that the exercise price shall remain the same as the exercise price specified above), which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW." As used herein, " Other Warrants" means and includes: (x) all warrants issued pursuant to the Securities Purchase Agreement; (y) all warrants (other than pre-funded warrants) issued in the Uplist PIPE; and (z) the Exchange Warrants (as defined in the Bridge Purchase Agreement (as defined below)). Such registration statement and exchange offer shall allow each holder of a Uplist Conversion Warrant or Other Warrant to participate in such exchange and receive, no later than the earlier of (a) 60th calendar day following the date of the registration statement filing and (b) the fifth trading day following the date on which the Company is notified by the U.S. Securities and Exchange Commission that the registration statement will not be reviewed or is no longer subject to further review and comments, the new warrants in exchange as provided above, and such new warrants shall immediately be tradable on the Nasdaq Capital Market and the underlying shares issuable upon exercise of such warrants shall from and after such time be registered and fully tradable in each case to the same extent as the shares of Common Stock sold in the Uplist Transaction (and required current prospectuses shall be provided). Failure of the Borrower to comply with this provision, including the obligations in any of the previous three sentences, shall constitute an Event of Default. If after the Uplist Conversion Warrant is issued to the Holder the Borrower makes a prepayment of all or any portion of the remaining outstanding amount under this Note prior to the Maturity Date, the prepayment shall not be subject to the prepayment premiums set forth in Section 1.9 herein.

Upon the Automatic Conversion, a Holder shall receive pre-funded warrants (the "Note Conversion Pre-Funded Warrants") in lieu of shares of Common Stock otherwise issuable to the Holder to the extent that the sum of (1) the number of shares of Common Stock beneficially owned by the Holder and its affiliates (other than shares of Common Stock which may be deemed beneficially owned through the ownership of the unconverted portion of the Notes or the unexercised or unconverted portion of any other security of the Borrower subject to a limitation on conversion or exercise analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the Automatic Conversion with respect to which the determination of this sentence is being made, would result in beneficial ownership by the Holder and its affiliates of more than 4.99% (or 9.99% if elected in writing by the Holder prior to the date of the execution of this Amendment) of the outstanding shares of Common Stock. For purposes of the immediately preceding sentence, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act, and Regulations 13D-G thereunder, provided, that the limit may be waived by the Holder (up to a maximum of 9.99%) upon, at the election of the Holder, not less than 61 days' prior notice to the Borrower, and the provisions of the conversion limitation shall continue to apply until such 61st day (or such later date, as determined by the Holder, as may be specified in such notice of waiver). The Note Conversion Pre-Funded Warrants shall have a nominal exercise price of $0.000125 per share (subject to adjustment for stock splits and similar transactions occurring after the date of the execution of this Amendment), may be exercised on a cashless basis, shall be exercisable immediately upon issuance, shall contain a customary beneficial ownership limitation provision and shall otherwise be identical to the pre-funded warrants issued in the Uplist PIPE."

1.2 Section 4.15A of the Third Notes is hereby amended and restated as follows:

"4.15A Future Raises. If any Uplist Conversion Warrants are issued, the Borrower shall not consummate any capital raising transactions (including but not limited to from the issuance of debt and/or equity securities) until the earlier of (a) the four-year anniversary of the date of the Securities Purchase Agreement (the "Bridge Purchase Agreement"), dated as of July 7, 2023, as amended, by and among the Company and the buyers signatory thereto, and (b) the first date on which all Holders hold less than 20% of the original amount of Uplist Conversion Warrants received by each Holder, respectively, in connection with the Automatic Conversion (such earlier date, the "4.15A End Date"), in each case other than (i) the Uplist Transaction, (ii) any Permitted Equity Line Facility (as defined in the Bridge Purchase Agreement), and (iii) any transaction that is consented to in writing (with specific reference to this Section 4.15A) by the holders of Uplist Conversion Warrants then outstanding that at such time are exercisable (ignoring for such purposes any beneficial ownership limitation provisions therein) for a number of shares that is, in the aggregate, at least 50.1% of the total number of shares then issuable upon exercise of all such Uplist Conversion Warrants outstanding (ignoring for such purposes any beneficial ownership limitation provisions therein). The provisions of this Section 4.15A shall survive termination or payment in full of this Note and shall remain in effect through the 4.15A End Date."

1.3 The Third Notes are hereby amended by deleting the words "by October 31, 2023" in Section 3.23 of the Third Notes and replacing such words with the following sentence in substitution therefor:

"by November 15, 2023"

2. Miscellaneous.

2.1 The "Third Note Amendment Termination Date" is hereby extended to November 15, 2023.

2.2 Except as expressly amended by this Amendment, the terms and provisions of the Third Notes shall continue in full force and effect. No reference to this Amendment need be made in any instrument or document making reference to the Third Notes; any reference to the Third Notes in any such instrument or document shall be deemed a reference to the Third Notes as amended hereby. The Third Notes as amended hereby shall be binding upon the parties thereto and their respective assigns and successors.

2.3 This Amendment shall be governed by and construed in accordance with the laws of the State of Nevada as such laws are applied to agreements between parties in Nevada.

2.4 This Amendment may be executed in separate counterparts, each such counterpart being deemed to be an original instrument, and all such counterparts shall together constitute the same agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first written above.

ARCH THERAPEUTICS, INC.

By: _____
Name: Michael S. Abrams
Title: Chief Financial Officer

Signature Page to Amendment No. 7 to the Third Notes

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first written above.

[ ]

By: _____
Name:
Title:

Signature Page to Amendment No. 7 to the Third Notes

Exhibit 10.49.2

AMENDMENT NO. 2
TO
SECOND AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT

This Amendment No. 2 to the Second Amended and Restated Registration Rights Agreement (this "**Amendment**") is made and entered into effective November [ ], 2023 (the "**Amendment Effective Date**") between Arch Therapeutics, Inc., a Nevada corporation (the "**Company**"), and certain holders of the Company's securities identified on the signature pages hereto (collectively, the "**Consenting Holders**"). Capitalized terms not defined herein shall have the same meaning as set forth in the Second Amended and Restated Registration Rights Agreement.

RECITALS:

WHEREAS, the Company and the Consenting Holders identified on the signature pages thereto entered into the Second Amended and Restated Registration Rights Agreement dated as of May 15, 2023, as amended on June 17, 2023 (as amended, the "**Second A&R Registration Rights Agreement**");

WHEREAS, Section 7(c) of the Second A&R Registration Rights Agreement provides that any provision of the Second A&R Registration Rights Agreement may be amended with the written consent of the Company and the Holders of 51% or more of the then outstanding Registrable Securities;

WHEREAS, the Company and the Consenting Holders wish to amend the Second A&R Registration Rights Agreement in order to extend the date of the Effectiveness Deadline; and

WHEREAS, the Consenting Holders collectively constitute 51% or more of the outstanding Registerable Securities.

NOW, THEREFORE, for due and adequate consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. The definitions of Effectiveness Deadline and Filing Deadline in Section 1 of the Second A&R Registration Rights Agreement shall be amended and restated as follows:

""**Effectiveness Deadline**" means, (i) with respect to the Initial Registration Statement required to be filed hereunder, the 90th calendar day following July 6, 2022; (ii) with respect to the Second Closing Registration Statement required to be filed hereunder, the 60th calendar day following the date of its filing; (iii) with respect to the Third Closing Registration Statement required to be filed hereunder, the 60th calendar day following the date of its filing; and (iv) with respect to any additional Registration Statements which may be required pursuant to Section 2(c), the 60th calendar day following the date on which an additional Registration Statement is required to be filed hereunder; provided, however, that in the event the Company is notified by the Commission that one or more of the above Registration Statements will not be reviewed or is no longer subject to further review and comments, the Effectiveness Deadline as to such Registration Statement shall be the fifth Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above, provided, further, if such Effectiveness Deadline falls on a day that is not a Trading Day, then the Effectiveness Deadline shall be the next succeeding Trading Day."

"**"Filing Deadline**" means: (i) with respect to the Initial Registration Statement, the date that is 45 days following the First Closing; (ii) with respect to the Second Closing Registration Statement, the earlier of (A) the date that is 30 days following the Uplist Transaction, and (B) November 30, 2023; and (iii) with respect to the Third Closing Registration Statement, the earlier of (A) the date that is 30 days following the Uplist Transaction, and (B) November 30, 2023; and (iv) with respect to any additional Registration Statements which may be required pursuant to Section 2(c), the earliest practical date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities."

2. The Second A&R Registration Rights Agreement is hereby amended by adding a new Section 2(a)(iv) thereof as follows:

"(iv) As used herein, "**Uplist S-1**" means the registration statement on Form S-1 pursuant to which the public offering of Common Stock is made that results in the Uplist Transaction. Notwithstanding anything contained herein to the contrary, the Company shall include in the Uplist S-1 all of the Registrable Securities that have not yet been registered by a Registration Statement as of the time the Uplist S-1 is declared effective under the Securities Act. Further, for the avoidance of doubt, the Uplist S-1 shall be considered a Registration Statement for purposes of this Agreement."

3. Except as modified by this Amendment, all other terms and conditions in the Second A&R Registration Rights Agreement shall remain in full force and effect and this Amendment shall be governed by all provisions thereof, including Section 7(h) regarding governing law. No reference to this Amendment need be made in any instrument or document making reference to the Second A&R Registration Rights Agreement; any reference to the Second A&R Registration Rights Agreement in any such instrument or document shall be deemed a reference to the Second A&R Registration Rights Agreement as amended hereby. The Second A&R Registration Rights Agreement as amended hereby shall be binding upon the parties thereto and their respective assigns and successors.

4. This Amendment may be executed in separate counterparts, each such counterpart being deemed to be an original instrument, and all such counterparts shall together constitute the same agreement.

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IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

ARCH THERAPEUTICS, INC.

By: _____
Name: Michael S. Abrams
Title: Chief Financial Officer

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SIGNATURE PAGE FOR CONSENTING HOLDERS FOLLOWS]

[CONSENTING HOLDERS SIGNATURE PAGES TO AMENDMENT]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Buyer:_____

Signature of Authorized Signatory of Buyer:_____

Name of Authorized Signatory:_____

Title of Authorized Signatory:_____

Exhibit 10.52.2

AMENDMENT NO. 2
TO
SECURITIES PURCHASE AGREEMENT

This Amendment No. 2 to the Securities Purchase Agreement (this "**Amendment**") is made and entered into effective November [ ], 2023 (the "**Amendment Effective Date**") between Arch Therapeutics, Inc., a Nevada corporation (the "**Company**"), and the Consenting Stockholders (as defined below). Capitalized terms not defined herein shall have the same meaning as set forth in the Securities Purchase Agreement (as defined below).

RECITALS:

WHEREAS, the Company and each buyer identified on the signature pages thereto (each, including its successors and assigns, a "**Buyer**" and collectively, the "**Buyers**") entered into the Securities Purchase Agreement dated as of July 7, 2023, as previously amended on August 30, 2023 (the "**Securities Purchase Agreement**"), pursuant to which, upon the terms and subject to the conditions contained therein, the Company agreed to issue and sell, and each Buyer, severally and not jointly, agreed to purchase from the Company shares of Common Stock and the Warrants;

WHEREAS, pursuant to Section 7(e), the Securities Purchase Agreement may be amended in a written instrument signed by the Company, the Lead Investor, and Buyers which purchased at least 50% plus $1.00 of the Securities based on the Purchase Price paid thereunder (the Lead Investor and such Buyers, collectively the "**Consenting Stockholders**").

NOW, THEREFORE, for due and adequate consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. Section 4(s) of the Securities Purchase Agreement shall be amended and restated as follows:

"True-Up. Upon the closing of the next underwritten public offering of Common Stock (the "Qualifying Offering") in which the effective offering price to the public per share of Common Stock (the "Qualifying Offering Price") is below $4.00 per share (subject to adjustment for stock splits and similar transactions), the Company shall issue additional Pre-Funded Warrants in an amount reflecting a reduction in the purchase price paid for the Shares and Pre-Funded Warrants that equals the proportion by which the Qualifying Offering Price is less than $4.00; provided that, if the Qualifying Offering is the Uplist, the Company may issue shares of Common Stock in lieu of such additional Pre-Funded Warrants to the extent necessary to cause the Company to meet the listing requirements of the applicable trading market, including Nasdaq SmallCap; provided, further, that the Company may not issue such shares of Common Stock to the extent that it would result in a Buyer beneficially owning in excess of the Beneficial Ownership Limitation (as defined in the Pre-Funded Warrants), calculated in accordance with Section 2(e) of the Pre-Funded Warrants, *mutatis mutandis*. In light of the entrance by the Company into the Securities Purchase Agreement dated as of November [ ], 2023 (the "**PIPE SPA**") with the purchasers party thereto, it is agreed that the Qualifying Offering Price pursuant to this section is fixed at $0.50 (subject to adjustment for stock splits and similar transactions), and therefore the Company shall, upon the closing of the "Uplist Transaction" (as defined in the PIPE SPA) issue such additional Pre-Funded Warrants to purchase an aggregate of 65,794,728 (subject to adjustment for stock splits and similar transactions) shares of Common Stock, or up to 65,794,728 shares of Common Stock in lieu of such warrants, as provided for in this section."

2. Except as modified by this Amendment, all other terms and conditions in the Securities Purchase Agreement shall remain in full force and effect and this Amendment shall be governed by all provisions thereof, including Section 7(a) regarding governing law. This Amendment may be executed in separate counterparts, all of which taken together shall constitute a single instrument.

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IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

ARCH THERAPEUTICS, INC.

By: _____
Name: Michael S. Abrams
Title: Chief Financial Officer

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SIGNATURE PAGE FOR BUYER FOLLOWS]

[BUYER SIGNATURE PAGES TO AMENDMENT]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Buyer:_____

Signature of Authorized Signatory of Buyer:_____

Name of Authorized Signatory:_____

Title of Authorized Signatory:_____

Exhibit 10.53.2

AMENDMENT NO. 2
TO
REGISTRATION RIGHTS AGREEMENT

This Amendment No. 2 to the Registration Rights Agreement (this "**Amendment**") is made and entered into effective November [ ], 2023 (the "**Amendment Effective Date**") between Arch Therapeutics, Inc., a Nevada corporation (the "**Company**"), and certain holders of the Company's securities identified on the signature pages hereto (collectively, the "**Consenting Holders**"). Capitalized terms not defined herein shall have the same meaning as set forth in the Registration Rights Agreement.

RECITALS:

WHEREAS, the Company and the Consenting Holders identified on the signature pages thereto entered into the Registration Rights Agreement dated as of July 7, 2023, as amended on August 30, 2023 (as amended, the "**Registration Rights Agreement**");

WHEREAS, Section 7(c) of the Registration Rights Agreement provides that any provision of the Registration Rights Agreement may be amended with the written consent of the Company and the Holders of 51% or more of the then outstanding Registrable Securities;

WHEREAS, the Company and the Consenting Holders wish to amend the Registration Rights Agreement in order to extend the date of the Filing Deadline; and

WHEREAS, the Consenting Holders collectively constitute 51% or more of the outstanding Registerable Securities.

NOW, THEREFORE, for due and adequate consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. The definition of Filing Deadline in Section 1 of the Registration Rights Agreement shall be amended and restated as follows:

"**"Filing Deadline**" means: (i) with respect to the Initial Registration Statement, the earlier of (A) the date that is 30 days following the closing date of the Uplist, and (B) November 30, 2023, and (ii) with respect to any additional Registration Statements which may be required pursuant to Section 2(c), the earliest practical date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities."

2. The Registration Rights Agreement is hereby amended by amending and restating the final sentence of Section 2(a) thereof as follows:

"Notwithstanding anything contained herein to the contrary, (i) the Company shall include in the Uplist S-1 all of the Registrable Securities, and (ii) the Uplist S-1 shall be considered a Registration Statement for purposes of this Agreement."

3. Except as modified by this Amendment, all other terms and conditions in the Registration Rights Agreement shall remain in full force and effect and this Amendment shall be governed by all provisions thereof, including Section 7(h) regarding governing law. No reference to this Amendment need be made in any instrument or document making reference to the Registration Rights Agreement; any reference to the Registration Rights Agreement in any such instrument or document shall be deemed a reference to the Registration Rights Agreement as amended hereby. The Registration Rights Agreement as amended hereby shall be binding upon the parties thereto and their respective assigns and successors.

4. This Amendment may be executed in separate counterparts, each such counterpart being deemed to be an original instrument, and all such counterparts shall together constitute the same agreement.

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IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

ARCH THERAPEUTICS, INC.

By: _____
Name: Michael S. Abrams
Title: Chief Financial Officer

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SIGNATURE PAGE FOR CONSENTING HOLDERS FOLLOWS]

[CONSENTING HOLDERS SIGNATURE PAGES TO AMENDMENT]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Buyer:_____

Signature of Authorized Signatory of Buyer:_____

Name of Authorized Signatory:_____

Title of Authorized Signatory:_____

Exhibit 10.54

SECURITIES PURCHASE AGREEMENT

This **SECURITIES PURCHASE AGREEMENT** (the "Agreement"), dated as of November [●], 2023 (the "Effective Date"), by **ARCH THERAPEUTICS, INC.**, a Nevada corporation, with headquarters located at 235 Walnut Street, Suite 6, Framingham, MA 01702 (the "Company"), and each buyer identified on the signature pages hereto (each, including it successors and assigns, a "Buyer" and collectively, the "Buyers").

RECITALS

A. The Company and the Buyers are executing and delivering this Agreement in reliance upon an exemption from securities registration afforded by the rules and regulations as promulgated by the United States Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "1933 Act");

B. Subject to the terms and provisions hereinafter set forth, each Buyer, severally and not jointly, desires to purchase, and the Company desires to sell and issue to Buyers, that number of (a) shares (the "Shares") of common stock, $0.001 par value per share, of the Company (the "Common Stock"), (b) pre-funded warrants, each in the form attached hereto as Exhibit A (the "Pre-Funded Warrants") to purchase shares of Common Stock and (c) common warrants, each in the form attached hereto as Exhibit B (the "Common Warrants" and, together with the Pre-Funded Warrants, the "Warrants") set forth on each Buyer's signature page hereto (the closing of such issuance and sale, the "Closing" and this Agreement and any and all documents or instruments executed or to be executed by in connection with this Agreement, including the Warrants and the Registration Rights Agreement, in the form attached as Exhibit C hereto (the "Registration Rights Agreement"), together with all modifications, amendments, extensions, future advances, renewals, and substitutions thereof are sometimes hereinafter individually referred to as a "Transaction Document" and collectively as the "Transaction Documents").

AGREEMENT

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Buyers severally (and not jointly) hereby agree as follows:

1. PURCHASE AND SALE OF SHARES AND WARRANTS.

a. Purchase of Shares, Pre-Funded Warrants and Common Warrants. Subject to the satisfaction (or waiver) of the terms and conditions of this Agreement, each Buyer, severally and not jointly, agrees to purchase, at the Closing, and Company agrees to sell and issue to each Buyer, at the Closing, (i) the number of Shares set forth on such Buyer's signature page hereto, at the price of $0.515625 (or $4.125 after giving effect to the 8-for-1 reverse stock split (the "Reverse Stock Split") that is currently contemplated in connection with the proposed underwritten public offering (the "Uplist Transaction") being conducted in conjunction with the listing of the Common Stock on any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist")) per Share, (ii) the number of Pre-Funded Warrants (each Pre-Funded Warrant being exercisable for one share of Common Stock) set forth on such Buyer's signature page hereto, at the price of $0.5155 (or $4.124 after giving effect to the Reverse Stock Split) per Pre-Funded Warrant and (iii) a number of accompanying Common Warrants (each Common Warrant being exercisable for one share of Common Stock) equal to the sum of the amount of Shares and Pre-Funded Warrants being purchased by such Buyer, as set forth on such Buyer's signature page hereto.

b. Closing. The Closing shall occur immediately after the Closing Trigger (as defined below) has occurred, or as soon as practicable thereafter, through the use of overnight mails, electronic email and subject to customary escrow instructions from Buyers and their respective counsel, or in such other manner as is mutually agreed to by the Company and the Buyers.

c. Form of Payment. On the date of Closing (the "Closing Date"), each Buyer shall pay the aggregate purchase price for the Shares, Pre-Funded Warrants and Common Warrants set forth on such Buyer's signature page hereto (the " Purchase Price") by release of such funds from the Escrow (as defined below), against delivery of such Shares and Warrants to such Buyer in the amounts set forth on such Buyer's signature page hereto.

2. REPRESENTATIONS AND WARRANTIES OF THE BUYERS. Each Buyer represents and warrants to the Company that:

a. Investment Purpose. As of the date hereof, the Buyer is purchasing the Shares, the Pre-Funded Warrants, the shares of Common Stock issuable upon exercise of or otherwise pursuant to the Pre-Funded Warrants (the "Pre-Funded Warrant Shares"), the Common Warrants and the shares of Common Stock issuable upon exercise of or otherwise pursuant to the Common Warrants (the "Common Warrant Shares" and together with the Pre-Funded Warrant Shares, the "Warrant Shares"), hereafter referred to in the aggregate as the "Securities," for its own account and not with a present view towards the public sale or distribution thereof, except pursuant to sales registered or exempted from registration under the 1933 Act; provided, however, that by making the representations herein, the Buyer does not agree to hold any of the Securities for any minimum or other specific term and reserves the right to dispose of the Securities at any time in accordance with or pursuant to a registration statement or an exemption under the 1933 Act.

b. Accredited Investor Status. The Buyer is an "accredited investor" as that term is defined in Rule 501(a) of Regulation D (an "Accredited Investor") and has completed the Investor Representation and Suitability Questionnaire included in the investor package that accompanied this Agreement (the "Investor Package") to indicate the Buyer's "accredited investor" status. The information contained in the Buyer's Investor Representation and Suitability Questionnaire is correct as of the date of this Agreement, and, if there should be any material change in such information prior to the Closing of the offering, such Buyer will furnish such revised or corrected information to the Company. The Buyer hereby acknowledges and is aware that except for any rescission rights that may be provided under applicable laws, the Buyer is not entitled to cancel, terminate or revoke its subscription and any agreements made in connection herewith shall survive the Buyer death or disability.

c. Reliance on Exemptions. The Buyer understands that the Securities are being offered and sold to it in reliance upon specific exemptions from the registration requirements of United States federal and state securities laws and that the Company is relying upon the truth and accuracy of, and the Buyer's compliance with, the representations, warranties, agreements, acknowledgments and understandings of the Buyer set forth herein in order to determine the availability of such exemptions and the eligibility of the Buyer to acquire the Securities.

d. Information. The Buyer and its advisors, if any, have been furnished with all materials relating to the business, finances and operations of the Company and materials relating to the offer and sale of the Securities which have been requested by the Buyer or its advisors. The Buyer and its advisors, if any, have been afforded the opportunity to ask questions of the Company. Notwithstanding the foregoing, the Company has not disclosed to the Buyer any material nonpublic information and will not disclose such information unless such information is disclosed to the public prior to or promptly following such disclosure to the Buyer. Neither such inquiries nor any other due diligence investigation conducted by Buyer or any of its advisors or representatives shall modify, amend or affect Buyer's right to rely on the Company's representations and warranties contained in Section 3 below. The Buyer understands that its investment in the Securities involves a significant degree of risk. The Buyer is not aware of any facts that may constitute a breach of any of the Company's representations and warranties made herein.

e. Governmental Review. The Buyer understands that no United States federal or state agency or any other government or governmental agency has passed upon or made any recommendation or endorsement of the Securities.

f. Transfer or Re-sale. The Buyer understands that the sale or re-sale of the Securities has not been and is not being registered under the 1933 Act or any applicable state securities laws, and the Securities may not be transferred unless the Securities are sold pursuant to an effective registration statement under the 1933 Act, the Buyer shall have delivered to the Company, at the cost of the Company, an opinion of counsel that shall be in form, substance and scope customary for opinions of counsel in comparable transactions to the effect that the Securities to be sold or transferred may be sold or transferred pursuant to an exemption from such registration, which opinion shall be accepted by the Company, the Securities are sold or transferred to an "affiliate" (as defined in Rule 144 promulgated under the 1933 Act (or a successor rule) ("Rule 144")) of the Buyer who agrees to sell or otherwise transfer the Securities only in accordance with this Section 2(f) and who is an Accredited Investor, the Securities are sold pursuant to Rule 144, and the Buyer shall have delivered to the Company, at the cost of the Company, not to exceed $750 per opinion, an opinion of counsel that shall be in form, substance and scope customary for opinions of counsel in corporate transactions, which opinion shall be accepted by the Company; (ii) any sale of the Securities made in reliance on Rule 144 may be made only in accordance with the terms of said Rule and further, if said Rule is not applicable, any re-sale of such Securities under circumstances in which the seller (or the person through whom the sale is made) may be deemed to be an underwriter (as that term is defined in the 1933 Act) may require compliance with some other exemption under the 1933 Act or the rules and regulations of the SEC thereunder; and (iii) except as otherwise provided herein, neither the Company nor any other person is under any obligation to register the Securities under the 1933 Act or any state securities laws or to comply with the terms and conditions of any exemption thereunder (in each case). Notwithstanding the foregoing or anything else contained herein to the contrary, the Securities may be pledged as collateral in connection with a bona fide margin account or other lending arrangement. In the event that the Company unreasonably rejects the opinion of counsel provided by the Buyer with respect to the transfer of Securities pursuant to an exemption from registration, within three (3) business days of delivery of the opinion to the Company, the Company shall pay to the Buyer liquidated damages of One Thousand Dollars ($1,000) per day, in cash or shares at the option of the Buyer ("Standard Liquidated Damages Amount"). If the Buyer elects to be pay the Standard Liquidated Damages Amount in shares of Common Stock, such shares shall be issued at the price of $0.25 per share, subject to adjustment for stock splits and similar transactions.

g. Legends. The Buyer understands that until such time as the Securities have been registered under the 1933 Act or may be sold pursuant to Rule 144 without any restriction as to the number of securities as of a particular date that can then be immediately sold, such Securities may bear a restrictive legend in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such Securities):

> **"NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE OR CONVERTIBLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL (WHICH COUNSEL SHALL BE SELECTED BY THE HOLDER), IN A GENERALLY ACCEPTABLE FORM, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES."**

The legend set forth above shall be removed and the Company shall issue a certificate without such legend to the holder of any Security upon which it is stamped, if, unless otherwise required by applicable state securities laws, (a) such Security is registered for sale under an effective registration statement filed under the 1933 Act or otherwise may be sold pursuant to Rule 144 or Regulation S without any restriction as to the number of securities as of a particular date that can then be immediately sold, or (b) such holder provides the Company with an opinion of counsel, in form, substance and scope customary for opinions of counsel in comparable transactions, to the effect that a public sale or transfer of such Security may be made without registration under the 1933 Act, which opinion shall be accepted by the Company so that the sale or transfer is effected. The Buyer agrees to sell all Securities, including those represented by a certificate(s) from which the legend has been removed, in compliance with applicable prospectus delivery requirements, if any, and to use commercially reasonable efforts to promptly sell such Securities following the Buyer's receipt thereof. Notwithstanding the foregoing, after the Registration Statement is declared effective by the SEC the Shares and Warrant Shares shall no longer have the legend set forth above – and any such legends shall be removed.

h. Authorization; Enforcement. This Agreement has been duly and validly authorized. This Agreement has been duly executed and delivered on behalf of the Buyer, and this Agreement constitutes a valid and binding agreement of the Buyer enforceable in accordance with its terms.

i. Residency. The Buyer, if an individual, is as resident of the jurisdiction set forth on its respective signature page, and if the Buyer is an entity, the Buyer is organized in the jurisdiction set forth on its respective signature page.

3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY . The Company makes the following representations and warranties to each Buyer, each of which shall be true and correct in all respects as of the date of the execution and delivery of this Agreement and as of the Closing Date, and which shall survive the execution and delivery of this Agreement:

a. Organization and Qualification. The Company and each of its Subsidiaries (as defined below), if any, is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is incorporated, with full power and authority (corporate and other) to own, lease, use and operate its properties and to carry on its business as and where now owned, leased, used, operated and conducted. The Company and each of its Subsidiaries is duly qualified as a foreign corporation to do business and is in good standing in every jurisdiction in which its ownership or use of property or the nature of the business conducted by it makes such qualification necessary except where the failure to be so qualified or in good standing would not have a Material Adverse Effect. "Material Adverse Effect" means any material adverse effect on the business, operations, assets, financial condition or prospects of the Company or its Subsidiaries, if any, taken as a whole, or on the transactions contemplated hereby or by the agreements or instruments to be entered into in connection herewith. "Subsidiaries" means any corporation or other organization, whether incorporated or unincorporated, in which the Company owns, directly or indirectly, any equity or other ownership interest.

b. Authorization; Enforcement. (i) The Company has all requisite corporate power and authority to enter into, deliver and perform this Agreement and to consummate the transactions contemplated hereby and thereby and to issue the Securities, in accordance with the terms hereof and thereof, (ii) the execution and delivery of this Agreement by the Company and the consummation by it of the transactions contemplated hereby and thereby (including without limitation, the issuance of the Shares and Warrants and the issuance and reservation for issuance of the Warrant Shares) have been duly authorized by the Company's Board of Directors and no further consent or authorization of the Company, its Board of Directors, or its shareholders is required, (iii) this Agreement has been duly executed and delivered by the Company by its authorized representative, and such authorized representative is the true and official representative with authority to sign this Agreement and the other documents executed in connection herewith and bind the Company accordingly, and (iv) this Agreement constitutes a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms.

c. Capitalization. The capitalization of the Company as of the date hereof is as set forth on Schedule 3(c). Except as disclosed in Schedule 3(c), no shares are reserved for issuance pursuant to the Company's stock option plans and no shares are reserved for issuance pursuant to securities exercisable for, or convertible into or exchangeable for shares of Common Stock. All of such outstanding shares of capital stock are, or upon issuance will be, duly authorized, validly issued, fully paid and non-assessable. No shares of capital stock of the Company are subject to preemptive rights or any other similar rights of the shareholders of the Company or any liens or encumbrances imposed through the actions or failure to act of the Company. Except as disclosed in Schedule 3(c), as of the effective date of this Agreement, (i) there are no outstanding options, warrants, scrip, rights to subscribe for, puts, calls, rights of first refusal, agreements, understandings, claims or other commitments or rights of any character whatsoever relating to, or securities or rights convertible into or exchangeable for any shares of capital stock of the Company or any of its Subsidiaries, or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its Subsidiaries, (ii) there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of its or their securities under the 1933 Act and (iii) there are no anti-dilution or price adjustment provisions contained in any security issued by the Company (or in any agreement providing rights to security holders) that will be triggered by the issuance of the Shares or the Warrants. The Company has filed in its SEC Documents true and correct copies of the Company's Certificate of Incorporation as in effect on the date hereof ("Certificate of Incorporation"), the Company's By-laws, as in effect on the date hereof (the "By-laws"), and the terms of all securities convertible into or exercisable for Common Stock of the Company and the material rights of the holders thereof in respect thereto. The Company shall provide each Buyer with a written update of this representation signed by the Company's Chief Executive Officer on behalf of the Company as of each Closing Date.

d. Issuance of Shares, Pre-Funded Warrants and Common Warrants. The issuance of the Shares, Pre-Funded Warrants and Common Warrants is duly authorized and, upon issuance in accordance with the terms of this Agreement, the Shares, Pre-Funded Warrants and Common Warrants will be validly issued, fully paid and non-assessable (except, with respect to the Pre-Funded Warrants and Common Warrants, to the extent that amounts need to be remitted upon their exercise) and free from all preemptive or similar rights, taxes, liens, charges and other encumbrances with respect to the issue thereof. The Common Warrant Shares and the Pre-Funded Warrant Shares are duly authorized and reserved for issuance and, upon exercise of each Warrant in accordance with its respective terms, will be validly issued, fully paid and non-assessable, and free from all taxes, liens, claims and encumbrances with respect to the issue thereof and shall not be subject to preemptive rights or other similar rights of shareholders of the Company and will not impose personal liability upon the holder thereof.

e. Acknowledgment of Dilution. The Company understands and acknowledges the potentially dilutive effect to the Common Stock upon the issuance of the Shares and upon issuance of the Pre-Funded Warrant Shares upon exercise of each Pre-Funded Warrant and the Common Warrant Shares upon exercise of each Common Warrant. The Company further acknowledges that its obligation to issue Pre-Funded Warrant Shares, Common Warrant Shares and other shares upon exercise of each Pre-Funded Warrant or Common Warrant in accordance with this Agreement or such Pre-Funded Warrantor or Common Warrant, as applicable, is absolute and unconditional regardless of the dilutive effect that such issuance may have on the ownership interests of other shareholders of the Company.

f. No Conflicts. The execution, delivery and performance of this Agreement by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the issuance and reservation for issuance of the Shares, Pre-Funded Warrant Shares and Common Warrant Shares) will not (i) conflict with or result in a violation of any provision of the Certificate of Incorporation or By-laws, or (ii) violate or conflict with, or result in a breach of any provision of, or constitute a default (or an event which with notice or lapse of time or both could become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture, patent, patent license or instrument to which the Company or any of its Subsidiaries is a party, or (iii) result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations and regulations of any self-regulatory organizations to which the Company or its securities are subject) applicable to the Company or any of its Subsidiaries or by which any property or asset of the Company or any of its Subsidiaries is bound or affected (except for such conflicts, defaults, terminations, amendments, accelerations, cancellations and violations as would not, individually or in the aggregate, have a Material Adverse Effect). Neither the Company nor any of its Subsidiaries is in violation of its Certificate of Incorporation, By-laws or other organizational documents and neither the Company nor any of its Subsidiaries is in default (and no event has occurred which with notice or lapse of time or both could put the Company or any of its Subsidiaries in default) under, and neither the Company nor any of its Subsidiaries has taken any action or failed to take any action that would give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which the Company or any of its Subsidiaries is a party or by which any property or assets of the Company or any of its Subsidiaries is bound or affected, except for possible defaults as would not, individually or in the aggregate, have a Material Adverse Effect. The businesses of the Company and its Subsidiaries, if any, are not being conducted, and shall not be conducted so long as any Buyer owns any of the Securities, in violation of any law, ordinance or regulation of any governmental entity. Except as specifically contemplated by this Agreement and as required under the 1933 Act and any applicable state securities laws, the Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court, governmental agency, regulatory agency, self-regulatory organization or stock market or any third party in order for it to execute, deliver or perform any of its obligations under this Agreement or the Warrants in accordance with the terms hereof or thereof or to issue and sell the Shares or Warrants in accordance with the terms hereof and to issue the Warrant Shares upon exercise of the Warrants. All consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence have been obtained or effected on or prior to the date hereof. The Company is not in violation of the listing requirements of the Over-the-Counter Bulletin Board (the "OTCBB"), the OTCQB or any similar quotation system, and does not reasonably anticipate that the Common Stock will be delisted by the OTCBB, the OTCQB or any similar quotation system, in the foreseeable future nor are the Company's securities "chilled" by DTC. The Company and its Subsidiaries are unaware of any facts or circumstances which might give rise to any of the foregoing.

g. SEC Documents; Financial Statements. Except as disclosed in Schedule 3(g), the Company has timely filed all quarterly and annual reports required to be filed by it with the SEC pursuant to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "1934 Act") (all of the foregoing filed prior to the date hereof and all exhibits included therein and financial statements and schedules thereto and documents (other than exhibits to such documents) incorporated by reference therein, being hereinafter referred to herein as the "SEC Documents"). The Company has delivered to each Buyer true and complete copies of the SEC Documents, except for such exhibits and incorporated documents, and except as such Documents are available EDGAR filings on the SEC's sec.gov website. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the 1934 Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. None of the statements made in any such SEC Documents is, or has been, required to be amended or updated under applicable law (except for such statements as have been amended or updated in subsequent filings prior the date hereof). As of their respective dates, the financial statements of the Company included in the SEC Documents complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. Such financial statements have been prepared in accordance with United States generally accepted accounting principles, consistently applied, during the periods involved and fairly present in all material respects the consolidated financial position of the Company and its consolidated Subsidiaries as of the dates thereof and the consolidated results of their operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments). Except as set forth in the financial statements of the Company included in the SEC Documents, the Company has no liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to June 30, 2023, and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in such financial statements, which, individually or in the aggregate, are not material to the financial condition or operating results of the Company. The Company is subject to the reporting requirements of the 1934 Act. For the avoidance of doubt, filing of the documents required in this Section 3(g) via the SEC's Electronic Data Gathering, Analysis, and Retrieval system ("EDGAR") shall satisfy all delivery requirements of this Section 3(g).

h. Absence of Certain Changes. Since June 30, 2023, except as disclosed in Schedule 3(h), there has been no material adverse change and no material adverse development in the assets, liabilities, business, properties, operations, financial condition, results of operations, prospects or 1934 Act reporting status of the Company or any of its Subsidiaries.

i. Absence of Litigation. There is no action, suit, claim, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the Company or any of its Subsidiaries, threatened against or affecting the Company or any of its Subsidiaries, or their officers or directors in their capacity as such, that could have a Material Adverse Effect. Schedule 3(i) contains a complete list and summary description of any pending or, to the knowledge of the Company, threatened proceeding against or affecting the Company or any of its Subsidiaries, without regard to whether it would have a Material Adverse Effect. The Company and its Subsidiaries are unaware of any facts or circumstances which might give rise to any of the foregoing.

j. Patents, Copyrights, etc. The Company and each of its Subsidiaries owns or possesses the requisite licenses or rights to use all patents, patent applications, patent rights, inventions, know-how, trade secrets, trademarks, trademark applications, service marks, service names, trade names and copyrights ("Intellectual Property") necessary to enable it to conduct its business as now operated (and, as presently contemplated to be operated in the future). Except as disclosed in Schedule 3(j), there is no claim or action by any person pertaining to, or proceeding pending, or to the Company's knowledge threatened, which challenges the right of the Company or of a Subsidiary with respect to any Intellectual Property necessary to enable it to conduct its business as now operated (and, as presently contemplated to be operated in the future); to the best of the Company's knowledge, the Company's or its Subsidiaries' current and intended products, services and processes do not infringe on any Intellectual Property or other rights held by any person; and the Company is unaware of any facts or circumstances which might give rise to any of the foregoing. The Company and each of its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of their Intellectual Property.

k. No Materially Adverse Contracts, Etc. Neither the Company nor any of its Subsidiaries is subject to any charter, corporate or other legal restriction, or any judgment, decree, order, rule or regulation which in the judgment of the Company's officers has or is expected in the future to have a Material Adverse Effect. Neither the Company nor any of its Subsidiaries is a party to any contract or agreement which in the judgment of the Company's officers has or is expected to have a Material Adverse Effect.

l. Tax Status. The Company and each of its Subsidiaries has made or filed all federal, state and foreign income and all other tax returns, reports and declarations required by any jurisdiction to which it is subject (unless and only to the extent that the Company and each of its Subsidiaries has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes) and has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and has set aside on its books provisions reasonably adequate for the payment of all taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim. The Company has not executed a waiver with respect to the statute of limitations relating to the assessment or collection of any foreign, federal, state or local tax. None of the Company's tax returns is presently being audited by any taxing authority.

m. Certain Transactions. Except for arm's length transactions pursuant to which the Company or any of its Subsidiaries makes payments in the ordinary course of business upon terms no less favorable than the Company or any of its Subsidiaries could obtain from third parties and other than the grant of stock options disclosed on Schedule 3(c), none of the officers, directors, or employees of the Company is presently a party to any transaction with the Company or any of its Subsidiaries (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any corporation, partnership, trust or other entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner.

n. Disclosure. All information relating to or concerning the Company or any of its Subsidiaries set forth in this Agreement and provided to each Buyer pursuant to Section 2(d) hereof and otherwise in connection with the transactions contemplated hereby is true and correct in all material respects and the Company has not omitted to state any material fact necessary in order to make the statements made herein or therein, in light of the circumstances under which they were made, not misleading. No event or circumstance has occurred or exists with respect to the Company or any of its Subsidiaries or its or their business, properties, prospects, operations or financial conditions, which, under applicable law, rule or regulation, requires public disclosure or announcement by the Company but which has not been so publicly announced or disclosed (assuming for this purpose that the Company's reports filed under the 1934 Act are being incorporated into an effective registration statement filed by the Company under the 1933 Act).

o. Acknowledgment Regarding each Buyer's Purchase of Securities. The Company acknowledges and agrees that each Buyer is acting solely in the capacity of an arm's length purchaser with respect to this Agreement and the transactions contemplated hereby. The Company further acknowledges that no Buyer is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereby and any statement made by a Buyer or any of its respective representatives or agents in connection with this Agreement and the transactions contemplated hereby is not advice or a recommendation and is merely incidental to the Buyer' purchase of the Securities. The Company further represents to each Buyer that the Company's decision to enter into this Agreement has been based solely on the independent evaluation of the Company and its representatives.

p. No Integrated Offering. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf, has directly or indirectly made any offers or sales in any security or solicited any offers to buy any security under circumstances that would require registration under the 1933 Act of the issuance of the Securities to the Buyers. The issuance of the Securities to the Buyers will not be integrated with any other issuance of the Company's securities (past, current or future) for purposes of any shareholder approval provisions applicable to the Company or its securities.

q. No Brokers. With the exception of the fees owing to Dawson James Securities, Inc. in respect of the transactions contemplated by this Agreement, as described in the Investor Package, and certain fees which may be owing to Maxim Group LLC relating to certain residual fee arrangements, the Company has taken no action which would give rise to any claim by any person for brokerage commissions, transaction fees or similar payments relating to this Agreement or the transactions contemplated hereby.

r. Permits; Compliance. The Company and each of its Subsidiaries is in possession of all franchises, grants, authorizations, licenses, permits, easements, variances, exemptions, consents, certificates, approvals and orders necessary to own, lease and operate its properties and to carry on its business as it is now being conducted (collectively, the "Company Permits"), and there is no action pending or, to the knowledge of the Company, threatened regarding suspension or cancellation of any of the Company Permits. Neither the Company nor any of its Subsidiaries is in conflict with, or in default or violation of, any of the Company Permits, except for any such conflicts, defaults or violations which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect. Since June 30, 2023, neither the Company nor any of its Subsidiaries has received any notification with respect to possible conflicts, defaults or violations of applicable laws, except for notices relating to possible conflicts, defaults or violations, which conflicts, defaults or violations would not have a Material Adverse Effect.

s. Environmental Matters.

(i) There are, to the Company's knowledge, with respect to the Company or any of its Subsidiaries or any predecessor of the Company, no past or present violations of Environmental Laws (as defined below), releases of any material into the environment, actions, activities, circumstances, conditions, events, incidents, or contractual obligations which may give rise to any common law environmental liability or any liability under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or similar federal, state, local or foreign laws and neither the Company nor any of its Subsidiaries has received any notice with respect to any of the foregoing, nor is any action pending or, to the Company's knowledge, threatened in connection with any of the foregoing. The term "Environmental Laws" means all federal, state, local or foreign laws relating to pollution or protection of human health or the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata), including, without limitation, laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants contaminants, or toxic or hazardous substances or wastes (collectively, "Hazardous Materials") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations issued, entered, promulgated or approved thereunder.

(ii) Other than those that are or were stored, used or disposed of in compliance with applicable law, no Hazardous Materials are contained on or about any real property currently owned, leased or used by the Company or any of its Subsidiaries, and no Hazardous Materials were released on or about any real property previously owned, leased or used by the Company or any of its Subsidiaries during the period the property was owned, leased or used by the Company or any of its Subsidiaries, except in the normal course of the Company's or any of its Subsidiaries' business.

(iii) There are no underground storage tanks on or under any real property owned, leased or used by the Company or any of its Subsidiaries that are not in compliance with applicable law.

t. Title to Property. Except as disclosed in Schedule 3(t), the Company and its Subsidiaries have good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by them which is material to the business of the Company and its Subsidiaries, in each case free and clear of all liens, encumbrances and defects or such as would not have a Material Adverse Effect. Any real property and facilities held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as would not have a Material Adverse Effect.

u. Internal Accounting Controls. Except as disclosed in Schedule 3(u), the Company and each of its Subsidiaries maintain a system of internal accounting controls sufficient, in the judgment of the Company's board of directors, to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

v. Foreign Corrupt Practices. Neither the Company, nor any of its Subsidiaries, nor any director, officer, agent, employee or other person acting on behalf of the Company or any Subsidiary has, in the course of his actions for, or on behalf of, the Company, used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

w. Solvency. Except as disclosed in Schedule 3(w), The Company (after giving effect to the transactions contemplated by this Agreement) has no information that would lead it to reasonably conclude that the Company would not, after giving effect to the transactions contemplated by this Agreement, have the ability to, nor does it intend to take any action that would impair its ability to, pay its debts from time to time incurred in connection therewith as such debts mature. The Company did not receive a qualified opinion from its auditors with respect to its most recent fiscal year end and, after giving effect to the transactions contemplated by this Agreement, does not anticipate or know of any basis upon which its auditors might issue a qualified opinion in respect of its current fiscal year. For the avoidance of doubt any disclosure of the Borrower's ability to continue as a "going concern" shall not, by itself, be a violation of this Section 3(w).

x. No Investment Company. The Company is not, and upon the issuance and sale of the Securities as contemplated by this Agreement will not be an "investment company" required to be registered under the Investment Company Act of 1940 (an "Investment Company"). The Company is not controlled by an Investment Company.

y. Insurance. The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged. Neither the Company nor any such Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect. Upon written request the Company will provide to each Buyer true and correct copies of all policies relating to directors' and officers' liability coverage, errors and omissions coverage, and commercial general liability coverage.

z. Bad Actor. No officer or director of the Company would be disqualified under Rule 506(d) of the Securities Act as amended on the basis of being a "bad actor" as that term is established in the September 19, 2013 Small Entity Compliance Guide published by the SEC.

aa. Shell Status. The Company represents that it has previously been a "shell" issuer, but at least twelve (12) months have passed since the Company has reported Form 10 type information indicating that it is no longer a "shell" issuer. Further, the Company will instruct its counsel to either (i) write a 144- 3(a)(9) opinion to allow for salability of the Shares or (ii) not unreasonably reject such opinion from a Buyer's counsel.

bb. No-Off Balance Sheet Arrangements. There is no transaction, arrangement, or other relationship between the Company or any of its Subsidiaries and an unconsolidated or other off-balance sheet entity that is required to be disclosed by the Company in its 1934 Act filings and is not so disclosed or that otherwise could be reasonably likely to have a Material Adverse Effect.

cc. Manipulation of Price. The Company has not, and to its knowledge no one acting on its behalf has: (i) taken, directly or indirectly, any action designed to cause or to result, or that could reasonably be expected to cause or result, in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any person any compensation for soliciting another to purchase any other securities of the Company.

dd. Sarbanes-Oxley Act. The Company and each Subsidiary is in material compliance with all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and all applicable rules and regulations promulgated by the SEC thereunder that are effective as of the date hereof.

ee. Employee Relations. Neither the Company nor any of its Subsidiaries is a party to any collective bargaining agreement or employs any member of a union. The Company believes that its and its Subsidiaries' relations with their respective employees are good. No executive officer (as defined in Rule 501(f) promulgated under the 1933 Act) or other key employee of the Company or any of its Subsidiaries has notified the Company or any such Subsidiary that such officer intends to leave the Company or any such Subsidiary or otherwise terminate such officer's employment with the Company or any such Subsidiary. To the knowledge of the Company, no executive officer or other key employee of the Company or any of its Subsidiaries is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement, non-competition agreement, or any other contract or agreement or any restrictive covenant, and the continued employment of each such executive officer or other key employee (as the case may be) does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all federal, state, local and foreign laws and regulations respecting labor, employment and employment practices and benefits, terms and conditions of employment and wages and hours, except where failure to be in compliance would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

ff. Breach of Representations and Warranties by the Company. The Company agrees that if the Company breaches any of the representations or warranties set forth in this Section 3, and in addition to any other remedies available to the Buyers pursuant to this Agreement, the Company shall pay to the Buyers the Standard Liquidated Damages Amount in cash or in shares of Common Stock at the option of the Company, until such breach is cured. If the Company elects to pay the Standard Liquidated Damages Amounts in shares of Common Stock, such shares shall be issued at the price of $0.25 per share, subject to adjustment for stock splits and similar transactions.

4. COVENANTS.

a. Best Efforts. The parties shall use their commercially reasonable best efforts to satisfy timely each of the conditions described in Section 5 and 6 of this Agreement.

b. Form D; Blue Sky Laws. The Company agrees to file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof to each Buyer promptly after such filing. The Company shall, on or before the Closing Date take such action as the Company shall reasonably determine is necessary to qualify the Securities for sale to the Buyers at the applicable closing pursuant to this Agreement under applicable securities or "blue sky" laws of the states of the United States (or to obtain an exemption from such qualification), and shall provide evidence of any such action so taken to each Buyer on or prior to such closing date.

c. Use of Proceeds. The Company shall use the proceeds from the sale of the Securities for working capital and other general corporate purposes and shall not, directly or indirectly, use such proceeds for any loan to or investment in any other corporation, partnership, enterprise or other person (except in connection with its currently existing direct or indirect Subsidiaries).

d. RESERVED.

e. Financial Information. The Company agrees to send or make available the following reports to each Buyer until such Buyer transfers, assigns, or sells all of the Securities: within ten (10) days after the filing with the SEC, a copy of its Annual Report on Form 10-K its Quarterly Reports on Form 10-Q and any Current Reports on Form 8-K; within one (1) day after release, copies of all press releases issued by the Company or any of its Subsidiaries; and contemporaneously with the making available or giving to the shareholders of the Company, copies of any notices or other information the Company makes available or gives to such shareholders. For the avoidance of doubt, filing the documents required in (i) above via EDGAR or releasing any documents set forth in (ii) above via a recognized wire service shall satisfy the delivery requirements of this Section 4(e).

f. Listing. The Company shall promptly secure the listing of the Shares upon each national securities exchange or automated quotation system, if any, upon which shares of Common Stock are then listed (subject to official notice of issuance) and, so long as any Buyer owns any of the Securities, shall maintain, so long as any other shares of Common Stock shall be so listed, such listing of all Shares. The Company will use commercial reasonable efforts to obtain and, so long as any Buyer owns any of the Securities, maintain the listing and trading of its Common Stock on the OTCBB, OTCQB, OTC Pink or any equivalent replacement exchange, the Nasdaq Global Market ("Nasdaq"), the Nasdaq Capital Market ("Nasdaq SmallCap"), the New York Stock Exchange ("NYSE"), or the NYSE American and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Financial Industry Regulatory Authority ("FINRA") and such exchanges, as applicable. The Company shall promptly provide to each Buyer copies of any material notices it receives from the OTCBB, OTCQB and any other exchanges or quotation systems on which the Common Stock is then listed regarding the continued eligibility of the Common Stock for listing on such exchanges and quotation systems. The Company shall pay any and all fees and expenses in connection with satisfying its obligation under this Section 4(f).

g. Furnishing of Information. Until the earlier of the time that (i) no Buyer owns Securities or (ii) the Common Warrants have expired, the Company will maintain the registration of the Common Stock under Section 12(b) or 12(g) of the 1934 Act and to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the 1934 Act even if the Company is not then subject to the reporting requirements of the 1934 Act, provided, that the Company may cease to comply with the provisions of this Section 4(g) in the event of a merger which results in a change of control of the Company or the sale of substantially all of the assets of the Company. If the Company breaches any provision of this Section 4(g) (a "Information Failure"), then, in addition to any other rights the Holders may have hereunder or under applicable law, on the date of such Information Failure and on each monthly anniversary of each such date (if the Information Failure shall not have been cured by such date) until the Information Failure is cured, the Company shall pay to each Buyer an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate Purchase Price paid by such Buyer pursuant to this Agreement, provided, that such fees shall not exceed 12.0% in the aggregate. If the Company fails to pay any partial liquidated damages pursuant to this Section 4(g) in full within seven days after the date payable, the Company will pay interest thereon at a rate of 18% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Buyer, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Information Failure. The Company shall not accrue such partial liquidated damages with respect to any period of time during which the Company is otherwise accruing partial liquidated damages under Section 2(d) of the Registration Rights Agreement.

h. No Integration. The Company shall not make any offers or sales of any security (other than the Securities) under circumstances that would require registration of the Securities being offered or sold hereunder under the 1933 Act or cause the offering of the Securities to be integrated with any other offering of securities by the Company for the purpose of any stockholder approval provision applicable to the Company or its securities.

i. Subsequent Equity Sales. From the date hereof until the twelve (12) month anniversary of the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive, additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon, and/or varies with, the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an "at-the-market" facility, whereby the Company may issue securities at a future determined price; *provided, however*, that, the issuance of Common Stock in any Permitted Equity Line Facility shall not be deemed a Variable Rate Transaction. Any Buyer shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages. "Permitted Equity Line Facility" means a "Future Offering" (as defined in the Securities Purchase Agreement dated July 6, 2022 among the Company and the buyers signatory thereto, as amended (the "Prior Notes SPA")) with respect to which the Company has followed the procedures required by the Right of First Refusal (as defined in the Prior Notes SPA), as set forth in Section 4(d) of the Prior Notes SPA.

j. Trading Activities. No Buyer nor its affiliates has an open short position (or other hedging or similar transactions) in the Common Stock of the Company and each Buyer agrees that it shall not, and that it will cause its affiliates not to, engage in any short sales of or hedging transactions with respect to the Common Stock of the Company.

k. RESERVED.

l. Legal Counsel Opinions. Upon the request of a Buyer from to time to time, the Company shall be responsible (at the Company's cost) for promptly (within two (2) business days from such Buyer's request) supplying to the Company's transfer agent and the requesting Buyer a customary legal opinion letter of its counsel (the "Legal Counsel Opinion") to the effect that the sale of Shares by such Buyer or its affiliates, successors and assigns is exempt from the registration requirements of the 1933 Act pursuant to Rule 144 (provided the requirements of Rule 144 are satisfied and provided the Shares are not then registered under the 1933 Act for resale pursuant to an effective registration statement); provided, however, that it is understood that such opinions will generally be provided by counsel selected by the Buyer and which need not be counsel to the Company.

m. Increase to Authorized Common Stock. If at any time after Closing there is not sufficient unreserved, authorized and unissued Common Stock available for the issuance of the shares of Common Stock issuable upon the exercise of the Warrants (after also reserving sufficient authorized and unissued shares of Common Stock to satisfy the exercise in full of all other warrants, options and convertible securities then outstanding), then the Company shall use its best efforts to hold a meeting of stockholders as soon as practicable for the purpose of obtaining the approval of its stockholders of a sufficient increase to the authorized common stock for all such issuances and, if such approval is not obtained at the first such meeting, shall use its reasonable best efforts to hold subsequent meetings every 90 days until such approval is obtained.

n. Breach of Covenants. The Company agrees that if the Company breaches any of the covenants set forth in this Section 4, in addition to any other remedies available to the Buyers pursuant to this Agreement, the Company shall pay to each Buyer the Standard Liquidated Damages Amount in cash or in shares of Common Stock at the option of the Buyer, until such breach is cured. If a Buyer elects to receive the Standard Liquidated Damages Amounts in shares of Common Stock, such shares shall be issued at the price of $0.25 per share, subject to adjustment for stock splits and similar transactions.

o. Transfer Agent Instructions. The Company shall issue irrevocable instructions to its transfer agent to issue certificates, registered in the name of each Buyer or its nominee, for the Shares issued at Closing and for Warrant Shares in such amounts as specified from time to time by such Buyer to the Company upon exercise of the Warrants in accordance with the terms thereof (the "Irrevocable Transfer Agent Instructions") and the Company shall be responsible for all of the fees and expenses of the transfer agent related to the Securities, including any fees or expenses charged by the transfer agent to a Buyer hereunder. In the event that the Company proposes to replace its transfer agent, the Company shall provide, prior to the effective date of such replacement, a fully executed Irrevocable Transfer Agent Instructions in a form as initially delivered pursuant to the this Agreement (including but not limited to the provision to irrevocably reserve shares of Common Stock as required by the Warrants) signed by the successor transfer agent to Company and the Company. Prior to registration of the Warrant Shares under the 1933 Act or the date on which the Warrant Shares may be sold pursuant to Rule 144 without any restriction as to the number of Securities as of a particular date that can then be immediately sold, all such certificates shall bear the restrictive legend specified in Section 2(g) of this Agreement. The Company warrants that: (i) no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section, and stop transfer instructions to give effect to Section 2(f) hereof (in the case of the Shares or Warrant Shares, prior to registration of the Shares or Warrant Shares under the 1933 Act or the date on which the Shares or Warrant Shares may be sold pursuant to Rule 144 without any restriction as to the number of Securities as of a particular date that can then be immediately sold), will be given by the Company to its transfer agent and that the Securities shall otherwise be freely transferable on the books and records of the Company as and to the extent provided in this Agreement and the Warrants; (ii) it will not direct its transfer agent not to transfer or delay, impair, and/or hinder its transfer agent in transferring (or issuing) (electronically or in certificated form) any certificate for Shares or Warrant Shares to be issued to a Buyer upon exercise of or otherwise pursuant to the Warrants as and when required by the Warrants and this Agreement; and (iii) it will not fail to remove (or directs its transfer agent not to remove or impairs, delays, and/or hinders its transfer agent from removing) any restrictive legend (or to withdraw any stop transfer instructions in respect thereof) on any certificate for any Shares or Warrant Shares issued to a Buyer upon Exercise of or otherwise pursuant to the Warrants as and when required by the Warrants and this Agreement. Nothing in this Section shall affect in any way a Buyer's obligations and agreement set forth in Section 2(g) hereof to comply with all applicable prospectus delivery requirements, if any, upon re-sale of the Securities. If a Buyer provides the Company, at the cost of the Company not to exceed $750, with (i) an opinion of counsel in form, substance and scope customary for opinions in comparable transactions, to the effect that a public sale or transfer of such Securities may be made without registration under the 1933 Act and such sale or transfer is effected or (ii) a Buyer provides reasonable assurances that the Securities can be and are being sold pursuant to Rule 144 (which reasonable assurances will be satisfied if a Buyer completes the certificate attached hereto as Exhibit D), the Company shall permit the transfer, and, in the case of the Shares and Warrant Shares, promptly instruct its transfer agent to issue one or more certificates, free from restrictive legend, in such name and in such denominations as specified by such Buyer. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Buyers, by vitiating the intent and purpose of the transactions contemplated hereby. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Section may be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Section, that each Buyer shall be entitled, in addition to all other available remedies, to an injunction restraining any breach and requiring immediate transfer, without the necessity of showing economic loss and without any bond or other security being required.

p. Acknowledgement of Participation. For purposes of the Lock-Up Agreements that were signed by each of the Buyers in connection with the Bridge SPA (as defined below), it is acknowledged and agreed that each of the Buyers' respective purchase of Shares and Warrants under this Agreement in the amounts set forth on the signature pages hereto will cause the "Lock-Up Period" referred to in such Lock-Up Agreements to cease upon the closing of the Uplist Transaction.

q. Transaction Expense Reimbursement. Upon the Closing, the Company shall reimburse (i) the Lead Investor (as identified in Schedule 4(q)) for an amount of up to $30,000.00 of the fees of outside legal counsel incurred by the Lead Investor for preparation of the Transaction Documents, which such amount shall paid by the Company to such counsel promptly after Closing, and (ii) the Major Investors (as identified in Schedule 4(q)) for an amount no greater than an aggregate of $5,000 of the fees of outside legal counsel incurred by the Major Investors for preparation of the Transaction Documents, which such amount shall paid by the Company to such counsel promptly after Closing as allocated in Schedule 4(q).

r. Funding of Purchase Price. Each of the Buyers shall fund its respective Purchase Price to an escrow account maintained by a third party financial institution or trust company with national or regional reputation, as reasonably determined by the Company, for the benefit of the Company (the "Escrow"), via wire transfer per the wire instructions provided to the Buyers by the Company or its outside legal counsel on or about the date hereof.

s. Registration Rights. The Company shall file a registration statement (the "Registration Statement") in respect of the Shares and the Warrant Shares in accordance with the Registration Rights Agreement.

t. Exchange Offer. The Company shall file, no later than sixty (60) days after the closing of the Uplist Transaction, a registration statement on Form S-4, or other appropriate form, registering the offer by the Company to exchange (and the Company shall in turn offer to exchange), on a one-for-one basis, all outstanding Common Warrants, Uplist Conversion Warrants (as defined in the Registration Rights Agreement), Exchange Warrants (as defined in the securities purchase agreement dated July 7, 2023, as amended (the "Bridge SPA"), between the Company and the purchasers party thereto) and warrants issued pursuant to the Prior Notes SPA (all such warrants described thus far, collectively, the "Exchanged Warrants") for newly issued warrants identical to the warrants that will be sold in the Uplist Transaction accompanying the shares of Common Stock (or share equivalents) being sold in the Uplist Transaction, which warrants are expected to be listed on the Nasdaq Capital Market under the symbol "ARTHW." Such registration statement and exchange offer shall allow each holder of an Exchanged Warrant to participate in such exchange and receive, no later than the earlier of (a) 60th calendar day following the date of the registration statement filing and (b) the fifth trading day following the date on which the Company is notified by the U.S. Securities and Exchange Commission that the registration statement will not be reviewed or is no longer subject to further review and comments, the new warrants in exchange as provided above, and such new warrants shall immediately be tradable on the Nasdaq Capital Market and the underlying shares issuable upon exercise of such warrants shall from and after such time be registered and fully tradable in each case to the same extent as the shares of Common Stock sold in the Uplist Transaction (and required current prospectuses shall be provided).

5. CONDITIONS PRECEDENT TO THE COMPANY'S OBLIGATIONS TO SELL. The obligation of the Company hereunder to issue and sell Shares and Warrants to a Buyer at the Closing is subject to the satisfaction, at or before the Closing Date of each of the following conditions thereto, provided that these conditions are for the Company's sole benefit and may be waived by the Company at any time in its sole discretion:

a. Such Buyer shall have executed this Agreement and delivered the same to the Company.

b. Such Buyer shall have executed the Investor Representation and Suitability Questionnaire and delivered the same to the Company.

c. Such Buyer shall have delivered its respective portion of the Purchase Price in accordance with Section 1(a) above.

d. The representations and warranties of such Buyer shall be true and correct in all material respects as of the date when made and as of the Closing Date as though made at that time (except for representations and warranties that speak as of a specific date), and such Buyer shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by such Buyer at or prior to the Closing Date.

e. No litigation, statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by or in any court or governmental authority of competent jurisdiction or any self-regulatory organization having authority over the matters contemplated hereby which prohibits the consummation of any of the transactions contemplated by this Agreement.

6. CONDITIONS PRECEDENT TO THE BUYER'S OBLIGATION TO PURCHASE.

a. The obligation of each Buyer hereunder to purchase Shares and Warrants at the Closing is subject to the satisfaction, at or before the Closing Date of each of the following conditions, provided that these conditions are for each Buyer's sole benefit and may be waived by a Buyer at any time in its sole discretion:

(i) The Company shall have executed one or more copies of this Agreement and delivered the same to each Buyer.

(ii) The Board of Directors of the Company shall have approved by Unanimous Written Consent (the "Consent") the transactions contemplated by this Agreement and the Company shall have delivered a copy of such fully executed Consent to each Buyer.

(iii) The Company shall have delivered to each Buyer its respective Shares and Warrants (in such denominations as such Buyer shall request) in accordance with Section 1(a) above.

(iv) The Company shall have delivered to the Buyers a duly executed copy of the Registration Rights Agreement.

(viii) The Company shall have delivered to each Buyer a customary opinion of counsel.

(ix) The Irrevocable Transfer Agent Instructions, in customary form and substance, shall have been delivered to and acknowledged in writing by the Company's Transfer Agent and a copy of such fully executed Irrevocable Transfer Agent Instructions shall have been delivered to each Buyer.

(x) The representations and warranties of the Company shall be true and correct in all material respects as of the date when made and as of the Closing Date as though made at such time (except for representations and warranties that speak as of a specific date) and the Company shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company at or prior to the Closing Date. Each Buyer shall have received a certificate or certificates, executed by the chief executive officer of the Company, dated as of the Closing Date, to the foregoing effect and as to such other matters as may be reasonably requested by such Buyer including, but not limited to certificates with respect to the Company's Certificate of Incorporation, By-laws and Board of Directors' resolutions relating to the transactions contemplated hereby.

(xi) No litigation, statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by or in any court or governmental authority of competent jurisdiction or any self-regulatory organization having authority over the matters contemplated hereby which prohibits the consummation of any of the transactions contemplated by this Agreement.

(xii) No event shall have occurred which could reasonably be expected to have a Material Adverse Effect on the Company including but not limited to a change in the 1934 Act reporting status of the Company or the failure of the Company to be timely in its 1934 Act reporting obligations.

(xiii) Trading in the Common Stock on the OTCBB, OTCQB or any similar quotation system shall not have been suspended by the SEC or the OTCBB, OTCQB, OTC Pink or any similar quotation system.

(xiv) Each Buyer shall have received an officer's certificate described in Section 3(c) above, dated as of the Closing Date.

(xv) The Registration Statement has been declared effective by the SEC.

(xvi) The Common Stock has been approved for listing on Nasdaq SmallCap.

(xvii) Each of the Buyers shall have deposited their respective Purchase Price in the Escrow.

As used in this Agreement, the "Closing Trigger" shall mean (and shall be deemed to have occurred) once all of the following have occurred: (i) all of the conditions above in this Section 6 have been satisfied or waived in writing by all Buyers and (ii) the underwriting agreement with respect to the Uplist Transaction has been executed by all parties thereto (such event, the "Uplist Pricing"), providing for an underwritten public offering with an effective price per share of Common Stock (or pre-funded warrant to purchase one share of Common Stock in lieu thereof plus the applicable nominal exercise price) and accompanying warrant to purchase one share of Common Stock no less than $0.515625 (or $4.125 after giving effect to the Reverse Stock Split), provided that the Closing Trigger shall be deemed to have occurred immediately prior to the Uplist Pricing.

7. GOVERNING LAW; MISCELLANEOUS.

a. Governing Law; Arbitration; Attorneys' Fees. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal Laws of the State of Nevada, without regard to the principles of conflicts of law thereof. Any disputes, claims, or controversies arising out of or relating to the Transaction Documents, or the transactions, contemplated thereby, or the breach, termination, enforcement, interpretation or validity thereof, including the determination of the scope or applicability of this Agreement to arbitrate, shall be referred to and resolved solely and exclusively by binding arbitration to be conducted before the Judicial Arbitration and Mediation Service ("JAMS"), or its successor pursuant the expedited procedures set forth in the JAMS Comprehensive Arbitration Rules and Procedures (the "Rules"), including Rules 16.1 and 16.2 of those Rules. The arbitration shall be held in New York, New York, before a tribunal consisting of three arbitrators each of whom will be selected in accordance with the "strike and rank" methodology set forth in Rule 15. Either party to this Agreement may, without waiving any remedy under this Agreement, seek from any federal or state court sitting in the State of New York any interim or provisional relief that is necessary to protect the rights or property of that party, pending the establishment of the arbitral tribunal. The costs and expenses of such arbitration shall be paid by and be the sole responsibility of the Company, including but not limited to each Buyer's attorneys' fees and each arbitrator's fees. The arbitrators' decision must set forth a reasoned basis for any award of damages or finding of liability. The arbitrators' decision and award will be made and delivered as soon as reasonably possibly and in any case within 60 days' following the conclusion of the arbitration hearing and shall be final and binding on the parties and may be entered by any court having jurisdiction thereof. If any party shall commence an Action to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company elsewhere in this Agreement, the prevailing party in such Action shall be reimbursed by the non-prevailing party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such Action.

b. Counterparts; Signatures by Facsimile. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party. This Agreement, once executed by a party, may be delivered to the other party hereto by facsimile transmission of a copy of this Agreement bearing the signature of the party so delivering this Agreement.

c. Construction; Headings. This Agreement shall be deemed to be jointly drafted by the Company and the Buyers and shall not be construed against any person as the drafter hereof. The headings of this Agreement are for convenience of reference only and shall not form part of, or affect the interpretation of, this Agreement.

d. Severability. In the event that any provision of this Agreement is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any provision hereof which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision hereof.

e. Entire Agreement; Amendments; Waivers. This Agreement, the Warrants and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor the Buyers makes any representation, warranty, covenant or undertaking with respect to such matters. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company, the Lead Investor and Buyers which purchased at least 50.0% plus $1.00, of the Securities based on Purchase Price paid hereunder or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought, provided that if any amendment, modification or waiver disproportionately and adversely impacts a Buyer (or group of Buyer), the consent of such disproportionately impacted Buyer (or group of Buyers) shall also be required. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition, or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any proposed amendment or waiver that disproportionately, materially, and adversely affects the rights and obligations of any Buyer relative to the comparable rights and obligations of the other Buyers shall require the prior written consent of such adversely affected Buyer. Any amendment effected in accordance with this Section 7(e) shall be binding upon each Buyer and holder of Securities and the Company.

f. Notices. All notices, demands, requests, consents, approvals, and other communications required or permitted hereunder shall be in writing and, unless otherwise specified herein, shall be (i) personally served, (ii) deposited in the mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by reputable air courier service with charges prepaid, or (iv) transmitted by hand delivery, telegram, email, or facsimile, addressed as set forth below or to such other address as such party shall have specified most recently by written notice. Any notice or other communication required or permitted to be given hereunder shall be deemed effective (a) upon hand delivery or delivery by email or facsimile, with accurate confirmation generated by the transmitting facsimile machine, at the address or number designated below (if delivered on a business day during normal business hours where such notice is to be received), or the first business day following such delivery (if delivered other than on a business day during normal business hours where such notice is to be received) or (b) on the second business day following the date of mailing by express courier service, fully prepaid, addressed to such address, or upon actual receipt of such mailing, whichever shall first occur. The addresses for such communications shall be:

If to the Company, to:

Arch Therapeutics, Inc.
235 Walnut Street
Suite 6
Framingham, MA 01702
Attn:

If to a Buyer, to the address set forth on its respective signature page hereto.

Each party shall provide notice to the other party of any change in address.

g. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and assigns. Neither the Company nor the any Buyer shall assign this Agreement or any rights or obligations hereunder without the prior written consent of the other. Notwithstanding the foregoing, subject to Section 2(f), a Buyer may assign its rights hereunder to any person that purchases Securities in a private transaction from such Buyer or to any of its "affiliates," as that term is defined under the 1934 Act, without the consent of the Company.

h. Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other person.

i. Survival. The representations and warranties of the Company and the agreements and covenants set forth in this Agreement shall survive the closing hereunder not withstanding any due diligence investigation conducted by or on behalf of the Buyers. The Company agrees to indemnify and hold harmless each Buyer and all their officers, directors, employees and agents for loss or damage arising as a result of or related to any breach or alleged breach by the Company of any of its representations, warranties and covenants set forth in this Agreement or any of its covenants and obligations under this Agreement, including advancement of expenses as they are incurred.

j. Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

k. No Strict Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

l. Remedies. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Buyers by vitiating the intent and purpose of the transaction contemplated hereby. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Agreement will be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Agreement, that each Buyer shall be entitled, in addition to all other available remedies at law or in equity, and in addition to the penalties assessable herein, to an injunction or injunctions restraining, preventing or curing any breach of this Agreement and to enforce specifically the terms and provisions hereof, without the necessity of showing economic loss and without any bond or other security being required.

m. Publicity. The Company, and each Buyer shall have the right to review a reasonable period of time before issuance of any press releases, SEC, OTCQB or FINRA filings, or any other public statements with respect to the transactions contemplated hereby; provided, however, that the Company shall be entitled, without the prior approval of the Buyer, to make any press release or SEC, OTCQB (or other applicable trading market) or FINRA filings with respect to such transactions as is required by applicable law and regulations (although the Buyer shall be consulted by the Company in connection with any such press release prior to its release and shall be provided with a copy thereof and be given an opportunity to comment thereon).

n. Indemnification. In consideration of each Buyer's execution and delivery of this Agreement and acquiring the Securities hereunder, and in addition to all of the Company's other obligations under this Agreement, the Company shall defend, protect, indemnify and hold harmless each Buyer and its stockholders, partners, members, officers, directors, employees and direct or indirect investors and any of the foregoing persons' agents or other representatives (including, without limitation, those retained in connection with the transactions contemplated by this Agreement) (collectively, the "Indemnitees") from and against any and all actions, causes of action, suits, claims, losses, costs, penalties, fees, liabilities and damages, and expenses in connection therewith (irrespective of whether any such Indemnitee is a party to the action for which indemnification hereunder is sought), and including reasonable attorneys' fees and disbursements (the "Indemnified Liabilities"), incurred by any Indemnitee as a result of, or arising out of, or relating to (a) any misrepresentation or breach of any representation or warranty made by the Company in this Agreement or any other agreement, certificate, instrument or document contemplated hereby, (b) any breach of any covenant, agreement or obligation of the Company contained in this Agreement or any other agreement, certificate, instrument or document contemplated hereby or (c) any cause of action, suit or claim brought or made against such Indemnitee by a third party (including for these purposes a derivative action brought on behalf of the Company) and arising out of or resulting from (i) the execution, delivery, performance or enforcement of this Agreement or any other agreement, certificate, instrument or document contemplated hereby, (ii) any transaction financed or to be financed in whole or in part, directly or indirectly, with the proceeds of the issuance of the Securities, or (iii) the status of the Buyers or holder of the Securities as an investor in the Company pursuant to the transactions contemplated by this Agreement. To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities that is permissible under applicable law.

[signature page follows]

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be duly executed as of the date first above written.

ARCH THERAPEUTICS, INC.

By: _____
Name:
Title:

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE(S) FOR BUYER(S) FOLLOW]

BUYER SIGNATURE PAGES TO SECURITIES PURCHASE AGREEMENT

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first written above.

Name of Buyer:

Signature of Authorized Signatory of Buyer: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Subscription Amount/Aggregate Purchase Price: $_____

Amount of Shares: _____

Price per Share: $0.515625 (or $4.125 after giving effect to the Reverse Stock Split)

Purchase Price for Shares: $_____

Amount of Pre-Funded Warrants: _____

Price per Pre-Funded Warrant: $0.5155 (or $4.124 after giving effect to the Reverse Stock Split)

Purchase Price for Pre-Funded Warrants: $_____

Amount of Common Warrants: _____

Address for notices:

EIN/Tax ID: _____

[SIGNATURE PAGES CONTINUE]

Exhibit A

Form of Pre-Funded Warrant

See attached.

Exhibit B

Form of Common Warrant

See attached.

Exhibit C

Form of Registration Rights Agreement

See attached.

Exhibit D

LEGEND REMOVAL CERTIFICATE

The undersigned stockholder (the "Stockholder") of ARCH THERAPEUTICS, INC., a Nevada corporation (the "Company"), is delivering this certificate to the Company in connection with the Stockholder's request to remove the transfer restriction legends under the Securities Act of 1933, as amended (the "Securities Act"), from certificates or book-entry notations issued in the Stockholder's name with respect to the number shares of the common stock, par value $0.001 per share, of the Company set forth under the Stockholder's name on the signature page hereof (the "Shares").

A. The Stockholder hereby represents and warrants to the Company that the Stockholder is sophisticated in financial matters and is familiar with the registration requirements under the Securities Act and Rule 144 thereunder. If the Stockholder is an investment fund, the Stockholder's chief compliance officer (or the chief compliance officer of the general partner, manager or other entity which manages the Stockholder) has reviewed this certificate and is aware that the Stockholder will be executing and delivering this certificate to the Company and undertaking the obligations set forth herein.

B. The Stockholder hereby covenants to the Company that:

1. The Stockholder will transfer the Shares only:

(a) pursuant to an effective resale registration statement covering the Stockholder's resale of the Shares, which includes a prospectus that is current, and in the manner contemplated by such registration statement, including the "Plan of Distribution" contained therein, provided that the Stockholder has not received oral or written notice from the Company or its counsel that use of the prospectus is suspended or that the prospectus otherwise may not be used for transfers of the Shares;

(b) pursuant to Rule 144 under the Act; or

(c) otherwise in accordance with the Securities Act, provided that the Stockholder provides the Company with advance notice of such transfer and an opinion of counsel that the proposed transfer is in compliance with the Securities Act.

2. The Stockholder acknowledges that because the Company was formerly a shell company, it is an entity subject to the restrictions set forth in Rule 144(i)(1)(i) and, accordingly, the availability of Rule 144 is expressly conditioned on the Company having complied with the public information requirements set forth in Rule 144(i)(2). As a result, prior to effecting any sale of the Shares pursuant to Rule 144, the Stockholder will confirm that Rule 144 is available at the time of such sale.

3. The Stockholder will provide the Company with any update to the Stockholder's contact information set forth on the signature page hereof for purposes of any notification to be delivered to the Stockholder relating hereto.

[*Signature page follows*]

The Stockholder acknowledges and agrees that its legal counsel and the Company's legal counsel are each authorized to rely on this certificate for purposes of preparing and delivering any legal opinion(s) required in connection with the removal of the transfer restriction legends from the Shares and the Company's transfer agent is authorized to rely on this certificate in connection with the removal of the transfer restriction legends from the Shares.

Very truly yours,

Name of Stockholder: _____

Signature: _____

Name of Signatory: _____

Title of Signatory: _____

Date: _____

Address: _____

E-mail address: _____

Tax Identification Number: _____

Number of Shares for Legend Removal: _____

Share Certificate or Book Entry Information: _____

Exhibit 10.55

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "**Agreement**") is made and entered into as of November [●], 2023, between Arch Therapeutics, Inc., a Nevada Corporation (the "**Company**"), and each of the several purchasers signatory hereto (each such purchaser, a "**Purchaser**" or "**Holder**" and, collectively, the "**Purchasers**").

This Agreement is made pursuant to the Securities Purchase Agreement, dated as of November [●], 2023 between the Company and each Purchaser (the "**Purchase Agreement**").

In consideration of the premises, the mutual provisions of this Agreement, and other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, Company and Purchaser agree as follows:

Section 1. Definitions. Capitalized terms used and not otherwise defined herein that are defined in the Purchase Agreement shall have the meanings given such terms in the Purchase Agreement. As used in this Agreement, the following terms shall have the following meanings:

"**Advice**" shall have the meaning set forth in Section 5(d).

"**Business Day**" means any day except Saturday, Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New of are authorized or required by law or other governmental action to close. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

"**Commission**" means the Securities and Exchange Commission.

"**Effectiveness Deadline**" means, with respect to the Initial Registration Statement required to be filed hereunder, the 60th calendar day following the date of its filing and with respect to any additional Registration Statements which may be required pursuant to Section 2(c), the 60th calendar day following the date on which an additional Registration Statement is required to be filed hereunder; provided, however, that in the event the Company is notified by the Commission that one or more of the above Registration Statements will not be reviewed or is no longer subject to further review and comments, the Effectiveness Deadline as to such Registration Statement shall be the fifth Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above, provided, further, if such Effectiveness Deadline falls on a day that is not a Trading Day, then the Effectiveness Deadline shall be the next succeeding Trading Day.

"**Effectiveness Period**" shall have the meaning set forth in Section 2(a).

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

"**Filing Deadline**" means: (i) with respect to the Initial Registration Statement, the earlier of (A) the closing date of the Uplist, and (B) the 60th calendar day following the date of this Agreement, and (ii) with respect to any additional Registration Statements which may be required pursuant to Section 2(c), the earliest practical date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

"**Holder**" or "**Holders**" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"**Indemnified Party**" shall have the meaning set forth in Section 7(c).

"**Indemnifying Party**" shall have the meaning set forth in Section 7(c).

"**Initial Registration Statement**" means the initial Registration Statement filed pursuant to Section 2(a) of this Agreement.

"**Losses**" shall have the meaning set forth in Section 7(a).

"**Note Conversion Pre-Funded Warrant(s)**" means the "Note Conversion Pre-Funded Warrants" (as defined in the Prior Notes) that are issued at any time under the Prior Notes in connection with the "Automatic Conversion" (as defined in the Prior Notes) thereunder.

"**Note Conversion Pre-Funded Warrant Shares**" means the shares of Common Stock issued or issuable upon exercise of the Note Conversion Pre-Funded Warrants.

"**Prior Notes**" means all "Notes" as defined in that certain Omnibus Amendment to Notes and Warrants dated July 7, 2023 among the Company and certain holders of such "Notes", as the same may be amended from time to time (including any amendments thereto entered into on or about the date hereof).

"**Prospectus**" means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated by the Commission pursuant to the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by a Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"**Registrable Securities**" means, as of any date of determination: (a) all of the Shares then issued; (b) all of the Warrant Shares then issued and issuable upon exercise in full of the Warrants; (c) all of the Note Conversion Pre-Funded Warrant Shares then issued and issuable upon exercise in full of the Note Conversion Pre-Funded Warrants; (d) all of the Uplist Conversion Warrant Shares then issued and issuable upon exercise in full of the Uplist Conversion Warrants; and (e) any securities issued or then issuable upon any antidilution provisions, stock split, dividend or other distribution, recapitalization or similar event with respect to the foregoing; provided, however, that any such securities shall cease to be Registrable Securities (and the Company shall not be required to maintain the effectiveness of any, or file another, Registration Statement hereunder with respect thereto) for so long as: (i) a Registration Statement with respect to the sale of such Registrable Securities is declared effective by the Commission under the Securities Act and such Registrable Securities have been disposed of by the Holder in accordance with such effective Registration Statement, (ii) such Registrable Securities have been sold in accordance with Rule 144 and the Company has delivered certificates representing such securities that no longer bear a legend and/or for which the Transfer Agent has not instituted a stop order restricting further transfer, or (iii) such securities become eligible for resale without volume or manner-of-sale restrictions and without current public information pursuant to Rule 144 as set forth in a written opinion letter to such effect, addressed, delivered and acceptable to the Transfer Agent and the affected Holders (assuming that such securities and any securities issuable upon exercise or conversion of which, or as a dividend upon which, such securities were issued or are issuable, were at no time held by any Affiliate of the Company, as reasonably determined by the Company, upon the advice of counsel to the Company).

"**Registration Statement**" means any registration statement required to be filed hereunder pursuant to Section 2(a) or Section 3 and any additional registration statements contemplated by Section 2(c), including (in each case) the Prospectus, amendments and supplements to any such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in any such registration statement. For the avoidance of doubt, the Uplist S-1 shall be considered a Registration Statement.

"**Rule 144**" means Rule 144 promulgated by the Commission under the 1933 Act, as such rule may be amended from time to time, or any other similar or successor rule or regulation of the Commission that may at any time permit the Holders to sell securities of the Company to the public without registration.

"**Rule 415**" means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission providing for offering securities on a continuous or delayed basis.

"**Rule 424**" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"**Selling Stockholder Questionnaire**" shall have the meaning set forth in Section 5(a).

"**SEC Guidance**" means: (i) any publicly-available written or oral guidance of the Commission staff, or any comments, requirements or requests of the Commission staff; and (ii) the Securities Act.

"**Securities Act**" means the Securities Act of 1933, as amended.

"**Trading Day**" means a day on which the principal national securities exchanges on which the Registrable Securities is listed or admitted to trading, are open for the transaction of business or, if the Registrable Securities are not listed or admitted to trading on any national securities exchange, a Business Day.

"**Uplist**" means the public offering of Common Stock pursuant to a registration statement on Form S-1 (the "**Uplist S-1**") that results in the listing of the Common Stock on any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange, or NYSE American.

"**Uplist Conversion Warrant(s)**" means the "Uplist Conversion Warrants" (as defined in the Prior Notes) that are issued at any time under the Prior Notes in connection with the "Automatic Conversion" (as defined in the Prior Notes) thereunder.

"**Uplist Conversion Warrant Shares**" means the shares of Common Stock issued or issuable upon exercise of the Uplist Conversion Warrants.

"**Warrant(s)**" shall have the same meaning set forth in the Purchase Agreement

"**Warrant Shares**" means the shares of Common Stock issued or issuable upon exercise of the Warrants.

Section 2. Required Registration.

(a) In the event that all or any portion of the Registrable Securities are not included on the Uplist S-1, the Company shall prepare and, as soon as practicable, but in no event later than the Filing Deadline, file with the Commission a Registration Statement covering the resale of all of the Registrable Securities that are not included on the Uplist S-1 (the "**Initial Registration Statement**"); provided that should any event following the date hereof result in the maximum number of shares of Common Stock issuable upon exercise of the Warrants, Note Conversion Pre-Funded Warrants or Uplist Conversion Warrants being increased because of the application of any provisions thereof, the Company shall promptly file an amendment to the Initial Registration Statement providing for registration of such additional shares. Subject to the terms of this Agreement, the Company shall cause each Registration Statement required to be filed under this Agreement to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event no later than the applicable Effectiveness Deadline, and shall keep such Registration Statements continuously effective under the Securities Act until the earlier of: (i) the date that all Registrable Securities covered by such Registration Statement no longer constitute Registrable Securities, or (ii) the two year anniversary of the date of this Agreement (the "**Effectiveness Period**"). The Company shall telephonically request effectiveness of a Registration Statement as of 5:00 p.m. Eastern Time on a Trading Day. The Company shall promptly notify the Holders via facsimile or by e-mail of the effectiveness of a Registration Statement on the same Trading Day that the Company telephonically confirms effectiveness with the Commission, which shall be the date requested for effectiveness of such Registration Statement. The Company shall, by 9:30 a.m. Eastern Time on the Trading Day after the effective date of such Registration Statement, file a final Prospectus with the Commission as required by Rule 424.

Notwithstanding anything contained herein to the contrary, the Company shall include in the Uplist S-1 all of the Registrable Securities.

(b) Notwithstanding the registration obligations set forth in Section 2(a), if the Commission informs the Company that all of the Registrable Securities cannot, as a result of the application of Rule 415, be registered for resale as a secondary offering on a single registration statement, the Company agrees to promptly inform each of the Holders thereof and use its reasonable best efforts to file amendments to the Initial Registration Statement as required by the Commission, covering the maximum number of Registrable Securities permitted to be registered by the Commission, on such form available to register for resale the Registrable Securities as a secondary offering, subject to the provisions of Section 2(e); with respect to filing on such appropriate form; provided, however, that prior to filing such amendment, the Company shall be obligated to use diligent efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, Compliance and Disclosure Interpretation 612.09 of the Commission.

(c) Notwithstanding any other provision of this Agreement, if the Commission or any SEC Guidance sets forth a limitation on the number of Registrable Securities permitted to be registered on a particular Registration Statement as a secondary offering (and notwithstanding that the Company used diligent efforts to advocate with the Commission for the registration of all or a greater portion of Registrable Securities), unless otherwise: (i) directed in writing by a Holder as to its Registrable Securities, or (ii) directed by the Commission as to the limitations or restrictions that it would require, the number of Registrable Securities to be registered on such Registration Statement will be reduced as follows:

a. First, the Company shall reduce or eliminate any securities to be included by any Person other than a Holder;

b. Second, the Company shall reduce Registrable Securities represented by Note Conversion Pre-Funded Warrant Shares (applied, in the case that some Note Conversion Pre-Funded Warrant Shares may be registered, to the Holders on a pro-rata basis based on the total number of unregistered Note Conversion Pre-Funded Warrant Shares held by such Holders);

d. Third, the Company shall reduce Registrable Securities represented by Uplist Conversion Warrant Shares (applied, in the case that some Uplist Conversion Warrant Shares may be registered, to the Holders on a pro-rata basis based on the total number of unregistered Uplist Conversion Warrant Shares held by such Holders);

e. Fourth, the Company shall reduce or eliminate Registrable Securities represented by Warrant Shares (applied, in the case that some Warrant Shares may be registered, to the Holders on a pro-rata basis based on the total number of unregistered Warrant Shares held by such Holders); and

e. Fifth, the Company shall reduce Registrable Securities represented by Shares (applied, in the case that some Shares may be registered, to the Holders on a pro-rata basis based on the total number of unregistered Shares held by such Holders); and

In the event of a cutback hereunder, the Company shall give the Holder at least five (5) Trading Days prior written notice along with the calculations as to such Holder's allotment. In the event the Company amends the Initial Registration Statement in accordance with the foregoing, or determines to file an additional Registration Statement, the Company will use its reasonable best efforts to file with the Commission, as promptly as allowed by Commission or SEC Guidance provided to the Company or to registrants of securities in general, one or more Registration Statements on such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement, as amended, as a result of any cutback of Registrable Securities of the Holders or any Registrable Securities not included in the Initial Registration Statement. In any additional Registration Statement filed because of a cutback in the number of Registrable Securities included in the Initial Registration Statement, all holders of shares of Common Stock included in such additional Registration Statement shall be subject to any additional cutbacks that may be required by the Commission on a *pro rata* basis.

(d) If less than all Registrable Securities are included in the Uplist S-1, then if: (i) the Initial Registration Statement is not filed on or prior to its Filing Deadline, or (ii) the Company fails to file with the Commission a request for acceleration of a Registration Statement in accordance with Rule 461 promulgated by the Commission pursuant to the Securities Act, within five (5) Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that such Registration Statement will not be "reviewed" or will not be subject to further review, or (iii) prior to the effective date of a Registration Statement, the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission in respect of such Registration Statement within fourteen (14) calendar days after the receipt of comments by or notice from the Commission that such amendment is required in order for such Registration Statement to be declared effective, or (iv) a Registration Statement registering for resale all of the Registrable Securities (other than any Registrable Securities that were not registered for resale on the Initial Registration Statement as a result of any cutback of Registrable Securities of the Holders required by the Commission or SEC Guidance, as described in Section 2(c)) is not declared effective by the Commission by the Effectiveness Deadline of the Initial Registration Statement, or (v) after the effective date of a Registration Statement, such Registration Statement ceases for any reason to remain continuously effective as to all Registrable Securities included in such Registration Statement, or the Holders are otherwise not permitted to utilize the Prospectus therein to resell such Registrable Securities, for more than twenty (20) consecutive calendar days or more than an aggregate of forty-five (45) calendar days (which need not be consecutive calendar days) during any 12-month period or (vi) any additional Registration Statement which may be required pursuant to Section 2(c) is not filed on or prior to its Filing Deadline (any such failure or breach being referred to as an "**Event**", and for purposes of clauses (i), (iv) and (vi), the date on which such Event occurs, and for purpose of clause (ii) the date on which such five (5) Trading Day period is exceeded, and for purpose of clause (iii) the date which such twenty (20) calendar day period is exceeded, and for purpose of clause (v) the date on which such twenty (20) or forty-five (45) calendar day period, as applicable, is exceeded being referred to as "**Event Date**"), then, in addition to any other rights the Holders may have hereunder or under applicable law, on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate Purchase Price paid by such Holder pursuant to the Purchase Agreement, provided, that such fees shall not exceed 12.0% in the aggregate. If the Company fails to pay any partial liquidated damages pursuant to this Section in full within seven days after the date payable, the Company will pay interest thereon at a rate of 18% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Event.

Section 3. Company Obligations. In connection with the Company's registration obligations hereunder, the Company shall:

(a) Not less than five (5) Trading Days prior to the filing of each Registration Statement and not less than two (2) Trading Days prior to the filing of any related Prospectus or any amendment or supplement thereto and shall use its commercially reasonable efforts to include any document that would be incorporated or deemed to be incorporated therein by reference, the Company shall: (i) furnish to each Holder copies of all such documents proposed to be filed, which documents (other than those incorporated or deemed to be incorporated by reference) will be subject to the review of such Holders, and (ii) cause its officers and directors, counsel and independent registered public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of respective counsel to each Holder, to conduct a reasonable investigation within the meaning of the Securities Act. Notwithstanding the above, the Company shall not be obligated to provide the Holders advance copies of any universal shelf registration statement registering securities in addition to those required hereunder, or any Prospectus prepared thereto.

(b) (i) Prepare and file with the Commission such amendments, including post-effective amendments, to a Registration Statement and the Prospectus used in connection therewith as may be necessary to keep a Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities, (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement (subject to the terms of this Agreement), and, as so supplemented or amended, to be filed pursuant to Rule 424, (iii) respond as promptly as reasonably possible to any comments received from the Commission with respect to a Registration Statement or any amendment thereto, and (iv) comply in all material respects with the applicable provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by a Registration Statement during the applicable period in accordance (subject to the terms of this Agreement) with the intended methods of disposition by the Holders thereof set forth in such Registration Statement as so amended or in such Prospectus as so supplemented.

(c) If during the Effectiveness Period, the number of Registrable Securities at any time exceeds 105% of the number of shares of Common Stock then registered in a Registration Statement, then the Company shall file as soon as reasonably practicable, but in any case, prior to the applicable Filing Deadline, an additional Registration Statement covering the resale by the Holders of not less than the number of such Registrable Securities.

(d) Notify the Holders of Registrable Securities to be sold (which notice shall, pursuant to clauses (iii) through (vi) hereof, be accompanied by an instruction to suspend the use of the Prospectus until the requisite changes have been made) as promptly as reasonably possible: (i) (A) when a Prospectus or any Prospectus supplement or post-effective amendment to a Registration Statement has been filed; (B) when the Commission notifies the Company whether there will be a "review" of such Registration Statement; and (C) with respect to a Registration Statement or any post-effective amendment, when the same has become effective, (ii) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to a Registration Statement or Prospectus or for additional information, in each case, after the such Registration Statement has been declared effective, (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose, (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose, (v) of the occurrence of any event or passage of time that makes the financial statements included in a Registration Statement ineligible for inclusion therein or any statement made in a Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to a Registration Statement, Prospectus or other documents so that, in the case of a Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and (vi) of the occurrence or existence of any pending corporate development with respect to the Company that the Company believes may be material and that, in the determination of the Company, makes it not in the best interest of the Company to allow continued availability of a Registration Statement or Prospectus, provided, however, in no event shall any such notice contain any information which would constitute material, non-public information regarding the Company or any of its Subsidiaries.

(e) Use its reasonable best efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(f) Furnish to each Holder, without charge, at least one conformed copy of each such Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Person, and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission; provided, that any such item which is available on the EDGAR system (or successor thereto) need not be furnished. Subject to the terms of this Agreement, the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the Company has given notice pursuant to Section 4(d).

(g) The Company shall cooperate with any broker-dealer through which a Holder proposes to resell its Registrable Securities in effecting a filing with the FINRA Corporate Financing Department pursuant to FINRA Rule 5110, as requested by any such Holder.

(h) Prior to any resale of Registrable Securities by a Holder, use its reasonable best efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the Registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by each Registration Statement; provided, that, the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(i) If requested by a Holder, cooperate with such Holder to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates shall be free, to the extent permitted by the Purchase Agreement, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holder may request.

(j) Upon the occurrence of any event contemplated by clause (v) or (vi) of Section 4(d), as promptly as reasonably possible under the circumstances taking into account the Company's good faith assessment of any adverse consequences to the Company and its stockholders of the premature disclosure of such event, prepare a supplement or amendment, including a post-effective amendment, to a Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither a Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with clauses (iii) through (vi) of Section 4(d) above to suspend the use of any Prospectus until the requisite changes to such Prospectus have been made, then the Holders shall suspend use of such Prospectus. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable.

(k) Comply with all applicable rules and regulations of the Commission.

(l) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the natural persons thereof that have voting and dispositive control over the shares. During any periods that the Company is unable to meet its obligations hereunder with respect to the registration of the Registrable Securities solely because any Holder fails to furnish such information within three Trading Days of the Company's request, any liquidated damages that are accruing at such time shall be tolled and any Event that may otherwise occur solely because of such delay shall be suspended until such information is delivered to the Company.

Section 4. Obligations of the Holders.

(a) Each Holder agrees to furnish to the Company a completed questionnaire in the form attached to this Agreement as **Appendix A** (a "**Selling Stockholder Questionnaire**") on a date that is not less than ten (10) days prior to the Filing Deadline or by the end of the fourth (4th) Trading Day following the date on which such Holder receives draft materials in accordance with Section 2(a). Each Holder shall furnish in writing to the Company such additional information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, and shall execute such documents in connection with such registration, as shall be reasonably required to effect the registration of such Registrable Securities. A Holder shall provide such information to the Company at least two (2) Business Days prior to the first anticipated filing date of such Registration Statement if such Holder elects to have any of the Registrable Securities included in the Registration Statement. The Company shall not be required to include the Registrable Securities of a Holder in a Registration Statement, and no Event shall be deemed to occur and or continue solely as a result of the failure to include the Registrable Securities of such Holder in the Registration Statement, if such Holder fails to furnish to the Company a fully completed Selling Stockholder Questionnaire at least two (2) Business Days prior to the Filing Deadline. Notwithstanding the foregoing, nothing in this Section 4(a) shall apply to the Uplist S-1.

(b) Each Holder agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of a Registration Statement hereunder, unless such Holder has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement.

(c) Each Holder covenants and agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it (unless an exemption therefrom is available) in connection with sales of Registrable Securities pursuant to a Registration Statement.

(d) Each Holder agrees that, upon receipt of any notice from the Company of the happening of an event pursuant to Section 3(d)(iii) - (vi) hereof, such Holder will immediately discontinue disposition of Registrable Securities pursuant to the Registration Statement covering such Registrable Securities, until it is advised in writing (the "**Advice**") by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable.

Section 5. Registration Expenses. All fees and expenses incident to the performance of or compliance with, this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses of the Company's counsel and independent registered public accountants) (A) with respect to filings made with the Commission, (B) with respect to filings required to be made with any Trading Market on which the Common Stock is then listed for trading, and (C) in compliance with applicable state securities or Blue Sky laws reasonably agreed to by the Company in writing (including, without limitation, fees and disbursements of counsel for the Company in connection with Blue Sky qualifications or exemptions of the Registrable Securities), (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities), (iii) messenger, telephone and delivery expenses of the Company, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any broker or similar commissions of any Holder or, except to the extent provided for in the Transaction Documents, any legal fees or other costs of the Holders.

Section 6. Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder, the officers, directors, members, partners, agents, brokers (including brokers who offer and sell Registrable Securities as principal as a result of a pledge or any failure to perform under a margin call of Common Stock), investment advisors and employees of the Company, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, members, stockholders, partners, agents, investment advisors and employees of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable attorneys' fees) and expenses (collectively, "**Losses**"), as incurred, arising out of or relating to: (i) any untrue or alleged untrue statement of a material fact contained in a Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, or (ii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement, except to the extent, but only to the extent, that (A) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein (it being understood that such information shall only consist of the name of the Holder, the number of offered shares (excluding percentages), the address and other information with respect to the Holder and the information included on **Appendix A** hereto, each only to the extent which such information appears in an effective Registration Statement or any Prospectus), or (B) in the case of an occurrence of an event of the type specified in Section 4(d)(iii)-(vi), the use by such Holder of an outdated, defective or otherwise unavailable Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 5(d). The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding arising from or in connection with the transactions contemplated by this Agreement of which the Company is aware. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such indemnified person and shall survive the transfer of any Registrable Securities by any of the Holders in accordance with Section 7(e).

(b) Indemnification by Holders. Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out of or based solely upon: (i) such Holder's failure to comply with any applicable prospectus delivery requirements of the Securities Act through no fault of the Company, or (ii) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading to the extent, but only to the extent, that such untrue statement or omission is contained in any information so furnished in writing by such Holder to the Company expressly for inclusion in such Registration Statement or such Prospectus (it being understood that such information shall only consist of the name of the Holder, the number of offered shares (excluding percentages), the address and other information with respect to the Holder and the information included on **Appendix A** hereto, each only to the extent which such information appears in an effective Registration Statement or any Prospectus), such Prospectus or in any amendment or supplement thereto or (iii) in the case of an occurrence of an event of the type specified in Section 4(d)(iii)-(vi), to the extent, but only to the extent, related to the use by such Holder of an outdated, defective or otherwise unavailable Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 5(d). In no event shall the liability of any selling Holder under this Section 7(b) be greater in amount than the dollar amount of the net proceeds received by such Holder upon the sale of the Registrable Securities giving rise to such indemnification obligation, except in the case of fraud or willful misconduct by such Holder.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "**Indemnified Party**"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "**Indemnifying Party**") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all reasonable fees and expenses incurred in connection with defense thereof; provided, that, the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have materially and adversely prejudiced the Indemnifying Party. An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses, (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding, or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and counsel to the Indemnified Party shall reasonably believe that a material conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of no more than one separate counsel shall be at the expense of the Indemnifying Party). The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding. Subject to the terms of this Agreement, all reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within thirty (30) calendar days of written notice thereof to the Indemnifying Party; provided, that, the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) not to be entitled to indemnification hereunder.

(d) Contribution. If the indemnification under Section 7(a) or 7(b) is unavailable to an Indemnified Party or insufficient to hold an Indemnified Party harmless for any Losses, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys' or other fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms. The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 7(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 7(d), no Holder shall be required to contribute pursuant to this Section 7(d), in the aggregate, any amount in excess of the amount by which the net proceeds actually received by such Holder from the sale of the Registrable Securities subject to the Proceeding exceeds the amount of any damages that such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission.

(e) The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

Section 7. Miscellaneous.

(a) Remedies. In the event of a breach by the Company or by a Holder of any of their respective obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, shall be entitled to specific performance of its rights under this Agreement. Each of the Company and each Holder agrees that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall not assert or shall waive the defense that a remedy at law would be adequate.

(b) Prohibition on Filing Other Registration Statements. The Company shall not, other than as provided in the Purchase Agreement, file any other registration statements (specifically excluding a registration statement on Form S-8 and the Uplist S-1) until all Registrable Securities are registered pursuant to a Registration Statement that is declared effective by the Commission, provided that this Section 8(b) shall not prohibit the Company from filing amendments to registration statements filed prior to the date of this Agreement and shall not prohibit the Company from filing a registration statement for a primary offering by the Company, provided that the Company makes no offering of securities pursuant to such registration statement prior to the effective date of the Registration Statement required hereunder that includes all of the Registrable Securities.

(c) Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and the Holders of 51% or more of the then outstanding Registrable Securities (for purposes of clarification, this includes any Registrable Securities issuable upon exercise or conversion of any Security). If a Registration Statement does not register all of the Registrable Securities pursuant to a waiver or amendment done in compliance with the previous sentence, then the number of Registrable Securities to be registered for each Holder shall be reduced pro rata among all Holders and each Holder shall have the right to designate which of its Registrable Securities shall be omitted from such Registration Statement. Notwithstanding the foregoing, a waiver or consent to depart from the provisions hereof with respect to a matter that relates exclusively to the rights of a Holder or some Holders and that does not directly or indirectly affect the rights of other Holders may be given only by such Holder or Holders of all of the Registrable Securities to which such waiver or consent relates; provided, however, that the provisions of this sentence may not be amended, modified, or supplemented except in accordance with the provisions of the first sentence of this Section 8(c). No consideration shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration also is offered to all of the parties to this Agreement.

(d) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be delivered as set forth in the Purchase Agreement.

(e) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. The Company may not assign (except by merger) its rights or obligations hereunder without the prior written consent of all of the Holders of the then outstanding Registrable Securities. Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under the Purchase Agreement.

(f) [Intentionally Omitted]

(g) Execution and Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof.

(h) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be determined in accordance with the provisions of the Purchase Agreement.

(i) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any other remedies provided by law.

(j) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their reasonable best efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(k) Headings. The headings in this Agreement are for convenience only, do not constitute a part of the Agreement and shall not be deemed to limit or affect any of the provisions hereof.

(o) Independent Nature of Holders' Obligations and Rights. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Holders are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by this Agreement or any other matters, and the Company acknowledges that the Holders are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or transactions. Each Holder shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose. The use of a single agreement with respect to the obligations of the Company contained was solely in the control of the Company, not the action or decision of any Holder, and was done solely for the convenience of the Company and not because it was required or requested to do so by any Holder. It is expressly understood and agreed that each provision contained in this Agreement is between the Company and a Holder, solely, and not between the Company and the Holders collectively and not between and among Holders.

****

(Signature Pages Follow)

IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

ARCH THERAPEUTICS, INC.

By: _____
Name:
Title:

[Signature Page of Holders Follows]

[SIGNATURE PAGE OF HOLDERS]

Name of Holder: _____

Signature of Authorized Signatory of Holder: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

[Signature Pages Continue]

Exhibit 10.56

PLACEMENT AGENCY AGREEMENT

Dawson James Securities, Inc.
101 North Federal Highway, Suite 600
Boca Raton, FL 33432

[____], 2023

Ladies and Gentlemen:

This letter (this "Agreement") constitutes the agreement between Arch Therapeutics, Inc., a Nevada corporation (the "Company") and Dawson James Securities, Inc. ("Dawson") pursuant to which Dawson shall serve as the placement agent (the "Placement Agent") (the "Services"), for the Company, on a reasonable "best efforts" basis, in connection with the proposed offer and placement by the Company of its Securities (as defined Section 3 of this Agreement) in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act") and Rule 506(b) of Regulation D ("Regulation D") as promulgated by the United States Securities and Exchange Commission (the "Commission") under the Securities Act, and Dawson agrees to act as the Company's exclusive Placement Agent (the "Offering"). The Company and Dawson hereby mutually agree to the terms of the Offering and the Securities, and nothing in this Agreement may be construed to suggest that Dawson would have the power or authority to bind the Company or an obligation for the Company to issue any Securities or complete the Offering. The Company expressly acknowledges and agrees that Dawson's obligations hereunder are on a reasonable "best efforts" basis only and that the execution of this Agreement does not constitute a commitment by Dawson to purchase the Securities and does not ensure the successful placement of the Securities or any portion thereof or the success of Dawson placing the Securities.

1. Appointment of Dawson as Exclusive Placement Agent.

On the basis of the representations, warranties, covenants and agreements of the Company herein contained, and subject to all the terms and conditions of this Agreement, the Company hereby appoints the Placement Agent as its exclusive placement agent in connection the Offering. The Offering documents shall consist of a Securities Purchase Agreement, form of Pre-Funded Warrant, form of Common Warrant and form of Registration Rights Agreement, and all exhibits attached thereto (collectively, the foregoing are referred to as the "Subscription Documents") Pursuant to this appointment, the Placement Agent will solicit offers for the purchase of or attempt to place all or part of the Securities of the Company in the proposed Offering. Until the final closing or earlier upon termination of this Agreement pursuant to Section 5 hereof, the Company shall not, without the prior written consent of the Placement Agent, solicit or accept offers to purchase the Securities other than through the Placement Agent. The Company acknowledges that the Placement Agent will act as an agent of the Company and use its reasonable "best efforts" to solicit offers to purchase the Securities from the Company on the terms, and subject to the conditions, set forth in the Subscription Documents. The Placement Agent shall use commercially reasonable efforts to assist the Company in obtaining performance by each Purchaser whose offer to purchase Securities has been solicited by the Placement Agent, but the Placement Agent shall not, except as otherwise provided in this Agreement, be obligated to disclose the identity of any potential purchaser or have any liability to the Company in the event any such purchase is not consummated for any reason. Under no circumstances will the Placement Agent be obligated to underwrite or purchase any Securities for its own account and, in soliciting purchases of the Securities, the Placement Agent shall act solely as an agent of the Company. The Services provided pursuant to this Agreement shall be on an "agency" basis and not on a "principal" basis.

The Placement Agent will solicit offers for the purchase of the Securities in the Offering at such times and in such amounts as the Placement Agent deems advisable. The Company shall have the sole right to accept offers to purchase Securities and may reject any such offer, in whole or in part. The Company and Placement Agent shall negotiate the timing and terms of the Offering and acknowledge that the Offering and the provision of Placement Agent services related to the Offering are subject to market conditions and the receipt of all required related clearances and approvals.

2. Fees; Expenses; Other Arrangements.

A . Placement Agent's Fee. As compensation for services rendered, the Company shall pay to the Placement Agent in cash by wire transfer in immediately available funds to an account or accounts designated by the Placement Agent an amount (the "Placement Fee") equal to eight percent (8.0%) of the aggregate gross proceeds received by the Company from the sale of the Securities, at the closing (the "Closing" and the date on which the Closing occurs, the "Closing Date"); and the Company shall issue to the Placement Agent or its designees at the Closing five-year warrants to purchase such number of Shares (as defined in Section 3) equal to 5.0% of the Shares and the Common Stock underlying the Pre-Funded Warrants sold in this Offering at an exercise price of 125% of the Purchase Price, which warrants shall be exercisable at any time beginning from the six month anniversary date of the Offering (the "Placement Agent Warrant" and together with the shares of Common Stock underlying the Placement Agent Warrant, the "Placement Agent Securities"). The Placement Agent may deduct from the net proceeds of the Offering payable to the Company on the Closing Date the Placement Fee set forth herein to be paid by the Company to the Placement Agent. The Placement Agent Warrants will provide for a cashless exercise provision, registration rights (including a one-time demand registration right and unlimited piggyback rights) and customary anti-dilution provisions (for stock dividends and splits and recapitalizations). For the avoidance of doubt, the term of the Placement Agent Warrants shall not exceed more than five years from the commencement of sales in the Offering. The Placement Agent hereby agrees that the holder of the Placement Agent Warrants will not: (a) sell, transfer, assign, pledge or hypothecate the Placement Agent Warrants or the securities issuable thereunder for a period of one hundred eighty (180) days beginning on the date of the commencement of sales in the Offering to anyone other than the Placement Agent, or an officer, partner, registered person or affiliate of the Placement Agent, in each case in accordance with FINRA Rule 5110(e)(1), or (b) cause the Placement Agent Warrants or the securities issuable thereunder to be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the Placement Agent Warrants or the securities thereunder for a period of one hundred eighty (180) days beginning on the date of the commencement of sales in the Offering, except as provided for in FINRA Rule 5110(e)(2).

B. Offering Expenses. The Company will be responsible for and will pay all expenses relating to the Offering, including, without limitation, (a) all filing fees and expenses relating to the registration of the resale of the Securities with the Commission; (b) all fees and expenses relating to the listing of the Shares on the NASDAQ Stock Market or on such other stock exchanges as the Company and Dawson together determine; (c) all fees, expenses and disbursements relating to the registration or qualification of the Securities under the "blue sky" securities laws of such states and other jurisdictions as Dawson may reasonably designate (including, without limitation, all filing and registration fees, and the reasonable fees and disbursements of the Company's "blue sky" counsel, which will be Dawson's counsel it being agreed that such fees and expenses of Dawson's counsel will be $15,000); (d) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Securities under the securities laws of such foreign jurisdictions as Dawson may reasonably designate; (e) the costs of all mailing and printing of the Subscription Documents; (f) transfer and/or stamp taxes, if any, payable upon the transfer of Securities from the Company to Dawson; (g) the fees and expenses of the Company's accountants; (h) the fees and expenses of the Company's legal counsel and other agents and representatives; and (i) up to $150,000 of Dawson's legal and additional diligence expenses.

C . Tail Financing. The Placement Agent shall be entitled to fees per Section 2.A. of this Agreement with respect to any public or private offering or other financing or capital-raising transaction of any kind ("Tail Financing") to the extent that such Tail Financing is provided to the Company by investors whom Dawson had introduced to the Company during the term of the Engagement Letter (as defined herein), as well as any investors that participated in the Offering, if such Tail Financing is consummated at any time within the 12-month period following the termination of the Engagement Letter or the Closing Date.

3. Description of the Offering.

The Securities to be offered directly to various investors (each, an "Investor" or "Purchaser" and, collectively, the "Investors" or the "Purchasers") pursuant to the Securities Purchase Agreement dated on or about the date hereof between the Company and the Investors (the "Securities Purchase Agreement") shall consist of shares (the "Shares") of the Company's common stock ("Common Stock"), certain pre-funded warrants to purchase Common Stock (the "Pre-Funded Warrants"), and certain common warrants to purchase Common Stock (the "Common Warrants," and collectively with the Pre-Funded Warrants, the "Warrants"). The Shares and the Warrants are collectively referred to herein as the "Securities". The purchase price for one Share and accompanying Commn Warrant shall be $0.515625 (or $4.125 after giving effect to the 8-for-1 reverse stock split (the "Reverse Stock Split") that is currently contemplated in connection with the proposed underwritten public offering (the "Uplist Transaction") being conducted in conjunction with the listing of the Common Stock on any of the Nasdaq Global Market, Nasdaq Capital Market, New York Stock Exchange or NYSE American (the "Uplist")) per unit of securities (the "Purchase Price"), or if the a Purchaser elects to purchase Pre-Funded Warrants in lieu of Shares, the Purchase Price shall be $0.5155 (or $4.124 after giving effect to the Reverse Stock Split) per unit of securities. If the Company shall default in its obligations to deliver Securities to a Purchaser whose offer it has accepted and who has tendered payment, the Company shall indemnify and hold the Placement Agent harmless against any loss, claim, damage or expense arising from or as a result of such default by the Company under this Agreement.

4. Delivery and Payment; Closing.

Settlement of the Securities purchased by an Investor shall be made as set forth in the Securities Purchase Agreement. On the Closing Date, the Shares to which the Closing relates shall be delivered through such means as the parties to the Securities Purchase Agreement may hereafter agree. The Securities shall be registered in such name or names and in such authorized denominations as set forth in the Securities Purchase Agreement. The term "Business Day" means any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions are authorized or obligated by law to close in New York, New York.

5. Term and Termination of Agreement.

The term of this Agreement will commence upon the execution of this Agreement and will terminate on the earlier of (i) the Closing Date and (ii) the 30th day after the date hereof. Notwithstanding anything to the contrary contained herein, any provision in this Agreement concerning or relating to confidentiality, indemnification, contribution, advancement, the Company's representations and warranties and the Company's obligations to pay fees and reimburse expenses will survive any expiration or termination of this Agreement. If any condition specified in Section 8 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Placement Agent by notice to the Company at any time on or prior to a Closing Date, which termination shall be without liability on the part of any party to any other party, except that those portions of this Agreement specified in Section 19 shall at all times be effective and shall survive such termination.

6. Permitted Acts.

Nothing in this Agreement shall be construed to limit the ability of the Placement Agent, its officers, directors, employees, agents, associated persons and any individual or entity "controlling," controlled by," or "under common control" with the Placement Agent (as those terms are defined in Rule 405 under the Securities Act) to conduct its business including without limitation the ability to pursue, investigate, analyze, invest in, or engage in investment banking, financial advisory or any other business relationship with any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

7. Representations, Warranties and Covenants of the Company.

As of the date and time of the execution of this Agreement and the Closing Date, the Company (i) makes such representations and warranties to the Placement Agent as the Company makes to the Investors pursuant to the Securities Purchase Agreement, and (ii) further represents, warrants and covenants to the Placement Agent, that:

A. Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

B. Restriction on Sales of Capital Stock. The Company, on behalf of itself and any successor entity, agrees that it will not, for a period of 90 days after the date of this Agreement (the "Lock-Up Period"), without the prior written consent of the Placement Agent (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or cause to be filed any registration statement with the Commission relating to the offering of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company, other than pursuant to a registration statement on Form S-8 for employee benefit plans; whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise; or (iii) publicly announce an intention to effect any transaction specified in clause (i) or (ii). Notwithstanding the foregoing, the foregoing restrictions shall not apply in respect of an Exempt Issuance. For purposes of this Agreement, "Exempt Issuance" shall mean the issuance of (i) shares of common stock or options to purchase common stock to directors, consultants, officers or employees of the Company in their capacity as such pursuant to an employee benefit plan or agreement which has been approved by the board of directors of the Company prior to or subsequent to the date hereof, including any sales of common stock by recipients of equity awards under such plans to cover applicable taxes on awards made under such plan, (ii) shares of common stock issued upon the conversion or exercise of any securities of the company that are presently outstanding as of the date hereof that are convertible into or exercisable for shares of common stock, (iii) securities issued in connection with acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company provided that any such issuance shall only be to a person (or to the equityholders of a person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, (iv) the establishment of a trading plan that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) (a "10b-5 Plan") of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or (v) the sale of shares common stock pursuant to any 10b-5 Plan.

C. Lock-Up Agreements. The Company has caused each of its officers and directors to deliver to the Placement Agent an executed Lock-Up Agreement, in the form attached as Exhibit A hereto (the "Lock-Up Agreement").

8. Conditions to the Obligations of the Placement Agent.

The obligations of the Placement Agent hereunder shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 7 hereof, in each case as of the date hereof and as of the Closing Date as though then made, to the timely performance by each of the Company of its covenants and other obligations hereunder on and as of such dates, and to each of the following additional conditions:

A. Form D and Blue Sky. The Company shall file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof to Placement Agent promptly after such filing. The Company shall, on or before the Closing Date, take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for, or to, qualify the Securities for sale to the Investors at the Closing pursuant to this Agreement under applicable securities or "blue sky" laws of the states of the United States (or to obtain an exemption from such qualification), and shall provide evidence of any such action so taken to the Placement Agent on or prior to the Closing Date. Without limiting any other obligation of the Company under this Agreement, the Company shall timely make all filings and reports relating to the offer and sale of the Securities required under all applicable securities laws (including, without limitation, all applicable federal securities laws and all applicable "blue sky" laws), and the Company shall comply with all applicable federal, state, local and foreign laws, statutes, rules, regulations and the like relating to the offering and sale of the Securities to the Investors.

B. Company Counsel Matters. On the Closing Date, the Placement Agent shall have received the favorable opinion from Lowenstein Sandler LLP, outside counsel for the Company, dated the Closing Date and addressed to the Placement Agent, substantially in form and substance reasonably satisfactory to the Placement Agent.

C. Officers Certificate. On the Closing Date, the Placement Agent shall have received a certificate of the chief financial officer of the Company, dated the Closing Date, to the effect that, (i) as of the Closing Date the representations and warranties of the Company contained herein and in the Securities Purchase Agreement were and are accurate in all material respects, and that the obligations to be performed by the Company hereunder have been fully performed in all material respects, and (ii) to the best of their knowledge, there has not been, subsequent to December 31, 2022, any material adverse change in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a material adverse effect.

D . Secretary Certificate. On the Closing Date, the Placement Agent shall have received from the Company a certificate of the corporate secretary of the Company, dated the Closing Date, certifying to the organizational documents of the Company, good standing in the jurisdiction of formation of the Company and board resolutions authorizing the Offering of the Securities.

E. No Material Changes. Since June 30, 2023, no event or series of events shall have occurred that reasonably would have or result in a Material Adverse Effect.

F. Delivery of Agreements.

(i) Lock-Up Agreements. On or before the Closing Date of this Agreement, the Company shall have delivered to the Placement Agent executed copies of the Lock-Up Agreements from each of the Company's officers and directors.

(i i) Placement Agent Warrant. On the Closing Date, the Company shall have delivered to the Placement Agent an executed copy of the Placement Agent Warrant in such designations as requested by the Placement Agent.

G . Additional Documents. At the Closing Date, Placement Agent Counsel shall have been furnished with such documents and opinions as they may require in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Securities as herein contemplated shall be satisfactory in form and substance to the Placement Agent and Placement Agent Counsel.

9. Indemnification and Contribution; Procedures.

A. Indemnification of the Placement Agent. The Company agrees to indemnify and hold harmless the Placement Agent, its affiliates and each person controlling such Placement Agent (within the meaning of Section 15 of the Securities Act), and the directors, officers, agents and employees of the Placement Agent, its affiliates and each such controlling person (the Placement Agent, and each such entity or person hereafter is referred to as an "Indemnified Person") from and against any losses, claims, damages, judgments, assessments, costs and other liabilities (collectively, the "Liabilities"), and shall reimburse each Indemnified Person for all fees and expenses (including the reasonable fees and expenses of counsel for the Indemnified Persons, except as otherwise expressly provided in this Agreement) (collectively, the "Expenses") and agrees to advance payment of such Expenses as they are incurred by an Indemnified Person in investigating, preparing, pursuing or defending any actions, whether or not any Indemnified Person is a party thereto, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (i) the Subscription Documents; (ii) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any "road show" or investor presentations made to investors by the Company (whether in person or electronically); or (iii) any application or other document or written communication (in this Section 9, collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, any national securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon, and in conformity with, the Placement Agent's information. The Company also agrees to reimburse each Indemnified Person for all Expenses as they are incurred in connection with such Indemnified Person's enforcement of his or its rights under this Agreement. Each Indemnified Person is an intended third party beneficiary with the same rights to enforce the indemnification that each Indemnified Person would have if he was a party to this Agreement.

B . Procedure. Upon receipt by an Indemnified Person of actual notice of an action against such Indemnified Person with respect to which indemnity may reasonably be expected to be sought under this Agreement, such Indemnified Person shall promptly notify the Company in writing; provided that failure by any Indemnified Person so to notify the Company shall not relieve the Company from any obligation or liability which the Company may have on account of this Section 9 or otherwise to such Indemnified Person, except to the extent (and only to the extent) that its ability to assume the defense is actually impaired by such failure or delay. The Company shall, if requested by the Placement Agent, assume the defense of any such action (including the employment of counsel and reasonably satisfactory to the Placement Agent). Any Indemnified Person shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company has failed promptly to assume the defense and employ counsel for the benefit of the Placement Agent and the other Indemnified Persons or (ii) such Indemnified Person shall have been advised that in the opinion of counsel that there is an actual or potential conflict of interest that prevents (or makes it imprudent for) the counsel engaged by the Company for the purpose of representing the Indemnified Person, to represent both such Indemnified Person and any other person represented or proposed to be represented by such counsel, it being understood, however, that the Company shall not be liable for the expenses of more than one separate counsel (together with local counsel), representing the Placement Agent and all Indemnified persons who are parties to such action. The Company shall not be liable for any settlement of any action effected without its written consent (which shall not be unreasonably withheld). In addition, the Company shall not, without the prior written consent of the Placement Agent, settle, compromise or consent to the entry of any judgment in or otherwise seek to terminate any pending or threatened action in respect of which advancement, reimbursement, indemnification or contribution may be sought hereunder (whether or not such Indemnified Person is a party thereto) unless such settlement, compromise, consent or termination (i) includes an unconditional release of each Indemnified Person, acceptable to such Indemnified Party, from all Liabilities arising out of such action for which indemnification or contribution may be sought hereunder and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any Indemnified Person. The advancement, reimbursement, indemnification and contribution obligations of the Company required hereby shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as every Liability and Expense is incurred and is due and payable, and in such amounts as fully satisfy each and every Liability and Expense as it is incurred (and in no event later than 30 days following the date of any invoice therefor).

C . Indemnification of the Company. The Placement Agent agrees to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all Liabilities, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in the Subscription Documents or any amendment or supplement thereto, in reliance upon, and in strict conformity with, the Placement Agent's Information. In case any action shall be brought against the Company or any other person so indemnified based on any Subscription Documents or any amendment or supplement thereto, and in respect of which indemnity may be sought against the Placement Agent, the Placement Agent shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the Placement Agent by the provisions of Section 9.B. The Company agrees promptly to notify the Placement Agent of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Securities or in connection with the Subscription Documents, provided, that failure by the Company so to notify the Placement Agent shall not relieve the Placement Agent from any obligation or liability which the Placement Agent may have on account of this Section 9.C. or otherwise to the Company, except to the extent the Placement Agent is materially prejudiced as a proximate result of such failure..

D . Contribution. In the event that a court of competent jurisdiction makes a finding that indemnity is unavailable to any indemnified person, then each indemnifying party shall contribute to the Liabilities and Expenses paid or payable by such indemnified person in such proportion as is appropriate to reflect (i) the relative benefits to the Company, on the one hand, and to the Placement Agent and any other Indemnified Person, on the other hand, of the matters contemplated by this Agreement or (ii) if the allocation provided by the immediately preceding clause is not permitted by applicable law, not only such relative benefits but also the relative fault of the Company, on the one hand, and the Placement Agent and any other Indemnified Person, on the other hand, in connection with the matters as to which such Liabilities or Expenses relate, as well as any other relevant equitable considerations; provided that in no event shall the Company contribute less than the amount necessary to ensure that all Indemnified Persons, in the aggregate, are not liable for any Liabilities and Expenses in excess of the amount of commissions actually received by the Placement Agent pursuant to this Agreement. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Placement Agent on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Placement Agent agree that it would not be just and equitable if contributions pursuant to this subsection (D) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (D). For purposes of this paragraph, the relative benefits to the Company, on the one hand, and to the Placement Agent on the other hand, of the matters contemplated by this Agreement shall be deemed to be in the same proportion as: (a) the total value received by the Company in the Offering, whether or not such Offering is consummated, bears to (b) the commissions paid to the Placement Agent under this Agreement. Notwithstanding the above, no person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the Securities Act shall be entitled to contribution from a party who was not guilty of fraudulent misrepresentation.

E . Limitation. The Company also agrees that no Indemnified Person shall have any liability (whether direct or indirect, in contract or tort or otherwise) to the Company for or in connection with advice or services rendered or to be rendered by any Indemnified Person pursuant to this Agreement, the transactions contemplated thereby or any Indemnified Person's actions or inactions in connection with any such advice, services or transactions, except to the extent that a court of competent jurisdiction has made a finding that Liabilities (and related Expenses) of the Company have resulted primarily from such Indemnified Person's gross negligence or willful misconduct in connection with any such advice, actions, inactions or services.

F. Survival. The advancement, reimbursement, indemnity and contribution obligations set forth in this Section 9 shall remain in full force and effect regardless of any termination of, or the completion of any Indemnified Person's services under or in connection with, this Agreement. Each Indemnified Person is an intended third-party beneficiary of this Section 9, and has the right to enforce the provisions of Section 9 as if he/she/it was a party to this Agreement.

10. Limitation of Dawson's Liability to the Company.

Dawson and the Company further agree that neither Dawson nor any of its affiliates or any of their respective officers, directors, controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act), employees or agents shall have any liability to the Company, its security holders or creditors, or any person asserting claims on behalf of or in the right of the Company (whether direct or indirect, in contract or tort, for an act of negligence or otherwise) for any losses, fees, damages, liabilities, costs, expenses or equitable relief arising out of or relating to this Agreement or the Services rendered hereunder, except for losses, fees, damages, liabilities, costs or expenses that arise out of or are based on any action of or failure to act by Dawson and that are finally judicially determined to have resulted solely from the gross negligence or willful misconduct of Dawson.

11. Limitation of Engagement to the Company.

The Company acknowledges that Dawson has been retained only by the Company, that Dawson is providing services hereunder as an independent contractor (and not in any fiduciary or agency capacity) and that the Company's engagement of Dawson is not deemed to be on behalf of, and is not intended to confer rights upon, any shareholder, owner or partner of the Company or any other person not a party hereto as against Dawson or any of its affiliates, or any of its or their respective officers, directors, controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act), employees or agents. Unless otherwise expressly agreed in writing by Dawson, no one other than the Company is authorized to rely upon any statement or conduct of Dawson in connection with this Agreement. The Company acknowledges that any recommendation or advice, written or oral, given by Dawson to the Company in connection with Dawson's engagement is intended solely for the benefit and use of the Company's management and directors in considering a possible Offering, and any such recommendation or advice is not on behalf of, and shall not confer any rights or remedies upon, any other person or be used or relied upon for any other purpose. Dawson shall not have the authority to make any commitment binding on the Company. The Company, in its sole discretion, shall have the right to reject any investor introduced to it by Dawson. If any purchase agreement and/or related transaction documents are entered into between the Company and the investors in the Offering, Dawson will be entitled to rely on the representations, warranties, agreements and covenants of the Company contained in any such purchase agreement and related transaction documents as if such representations, warranties, agreements and covenants were made directly to Dawson by the Company.

12. Amendments and Waivers.

No supplement, modification or waiver of this Agreement shall be binding unless executed in writing by the party to be bound thereby. The failure of a party to exercise any right or remedy shall not be deemed or constitute a waiver of such right or remedy in the future. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (regardless of whether similar), nor shall any such waiver be deemed or constitute a continuing waiver unless otherwise expressly provided.

13. Confidentiality.

In the event of the consummation or public announcement of any Offering, Dawson shall have the right to disclose its participation in such Offering, including, without limitation, the placement at its cost of "tombstone" advertisements in financial and other newspapers and journals. Dawson agrees not to use any confidential information concerning the Company provided to Dawson by the Company for any purposes other than those contemplated under this Agreement.

14. Headings.

The headings of the various sections of this Agreement have been inserted for convenience of reference only and will not be deemed to be part of this Agreement.

15. Counterparts.

This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

16. Severability.

In case any provision contained in this Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein will not in any way be affected or impaired thereby.

17. Use of Information.

The Company will furnish Dawson such written information as Dawson reasonably requests in connection with the performance of its services hereunder. The Company understands, acknowledges and agrees that, in performing its services hereunder, Dawson will use and rely entirely upon such information as well as publicly available information regarding the Company and other potential parties to an Offering and that Dawson does not assume responsibility for independent verification of the accuracy or completeness of any information, whether publicly available or otherwise furnished to it, concerning the Company or otherwise relevant to an Offering, including, without limitation, any financial information, forecasts or projections considered by Dawson in connection with the provision of its services.

18. Absence of Fiduciary Relationship.

The Company acknowledges and agrees that: (a) the Placement Agent has been retained solely to act as Placement Agent in connection with the sale of the Securities and that no fiduciary, advisory or agency relationship between the Company and the Placement Agent has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Placement Agent has advised or is advising the Company on other matters; (b) the Purchase Price and other terms of the Securities set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Investors and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Placement Agent and its affiliates are engaged in a broad range of transactions that may involve interests that differ from those of the Company and that the Placement Agent has no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and (d) it has been advised that the Placement Agent is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of the Placement Agent, and not on behalf of the Company and that the Placement Agents may have interests that differ from those of the Company. The Company waives to the full extent permitted by applicable law any claims it may have against the Placement Agent arising from an alleged breach of fiduciary duty in connection with the Offering.

19. Survival of Indemnities, Representations, Warranties, Etc.

The respective indemnities, covenants, agreements, representations, warranties and other statements of the Company and Placement Agent, as set forth in this Agreement or made by them respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation made by or on behalf of the Placement Agent, the Company, the Purchasers or any person controlling any of them and shall survive delivery of and payment for the Securities. Notwithstanding any termination of this Agreement, including without limitation any termination pursuant to Section 5, the payment, reimbursement, indemnity, contribution and advancement agreements contained in Sections 2, 9, 10, and 11, respectively, and the Company's covenants, representations, and warranties set forth in this Agreement shall not terminate and shall remain in full force and effect at all times. The indemnity and contribution provisions contained in Section 9 and the covenants, warranties and representations of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of any Placement Agent, any person who controls any Placement Agent within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act or any affiliate of any Placement Agent, or by or on behalf of the Company, its directors or officers or any person who controls the Company within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act, and (iii) the issuance and delivery of the Securities.

20. Governing Law.

This Agreement shall be governed by and construed in accordance with the laws of the State of Florida applicable to agreements made and to be fully performed therein. Any disputes that arise under this Agreement, even after the termination of this Agreement, will be heard only in the state or federal courts located in Palm Beach, Florida. The parties hereto expressly agree to submit themselves to the jurisdiction of the foregoing courts in Palm Beach, Florida. The parties hereto expressly waive any rights they may have to contest the jurisdiction, venue or authority of any court sitting in Palm Beach, Florida.

21. Notices.

All communications hereunder shall be in writing and shall be mailed or hand delivered and confirmed to the parties hereto as follows:

If to the Company:

Arch Therapeutics, Inc.
235 Walnut Street
Suite 6
Framingham, MA 01702Attention: CEO

If to the Placement Agent:

Dawson James Securities, Inc.
101 North Federal Highway, Suite 600
Boca Raton, FL 33432
Attention: Chief Executive Officer

Any party hereto may change the address for receipt of communications by giving written notice to the others.

22. Miscellaneous.

This Agreement shall not be modified or amended except in writing signed by Dawson and the Company. This Agreement shall be binding upon and inure to the benefit of both Dawson and the Company and their respective assigns, successors, and legal representatives. This Agreement constitutes the entire agreement of Dawson and the Company, and supersedes any prior agreements, with respect to the subject matter hereof; provided that notwithstanding anything to the contrary set forth herein, it is understood and agreed by the parties hereto that all other terms and conditions of that certain engagement letter between the Company and Placement Agent dated as of August 17, 2021 (the "Engagement Letter") shall remain in full force and effect. If any provision of this Agreement is determined to be invalid or unenforceable in any respect, such determination will not affect such provision in any other respect, and the remainder of this Agreement shall remain in full force and effect. This Agreement may be executed in counterparts (including facsimile or .pdf counterparts), each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

23. Successors.

This Agreement will inure to the benefit of and be binding upon the parties hereto, and to the benefit of the employees, officers and directors and controlling persons referred to in Section 9 hereof, and to their respective successors, and personal representative, and, except as set forth in Section 9 of this Agreement, no other person will have any right or obligation hereunder.

24. Partial Unenforceability.

The invalidity or unenforceability of any section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

[SIGNATURE PAGE TO FOLLOW]

In acknowledgment that the foregoing correctly sets forth the understanding reached by Dawson and the Company, and intending to be legally bound, please sign in the space provided below, whereupon this letter shall constitute a binding Agreement as of the date executed.

Very truly yours,

ARCH THERAPEUTICS, INC.

By:_____

Name:
Title:

Confirmed as of the date first written above:

DAWSON JAMES SECURITIES, INC.

By:_____

Name: Robert D. Keyser, Jr.
Title: Chief Executive Officer

[Signature Page to Placement Agency Agreement]

Exhibit A

Lock-Up Agreement

[Signature Page to Lock-Up Agreement]

Exhibit 10.57

FORM OF LOCK-UP AGREEMENT

_____, 2023

ARCH THERAPEUTICS, INC.
235 Walnut Street, Suite 6
Framingham, MA 01702

Re: Securities Purchase Agreement dated July 7, 2023

Ladies and Gentlemen:

This lock-up agreement (the "Agreement") is being delivered to you in connection with the proposed Securities Purchase Agreement (the "Purchase Agreement"), dated July 7, 2023 between Arch Therapeutics, Inc., a Nevada corporation (the "Company"), and each buyer identified on the signature pages thereto (collectively, the "Buyers"), relating to the issuance and sale (the "Offering") by the Company of the Securities. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Purchase Agreement.

Pursuant to Section 5(e) of the Purchase Agreement, the undersigned agrees with the Company that, during the period beginning on and including the Closing Date through and including the date that is the one-year anniversary of the Closing Date (the "Lock-Up Period"), the undersigned will not, directly or indirectly, (i) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, or announce the intention to otherwise dispose of, any Shares or Warrant Shares (such shares, the "Subject Shares") or securities convertible into or exercisable or exchangeable for Subject Shares; (ii) enter into any swap, hedge or similar agreement or arrangement that transfers in whole or in part, the economic risk of ownership of the Subject Shares or securities convertible into or exercisable or exchangeable for Subject Shares, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, or (iii) engage in any short selling of the Subject Shares or securities convertible into or exercisable or exchangeable for Subject Shares.

The restrictions set forth in the immediately preceding paragraph shall not apply to any transfers made by the undersigned (i) as a *bona fide* gift to any member of the immediate family (as defined below) of the undersigned or to a trust the beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, (ii) by will or intestate succession upon the death of the undersigned, (iii) pursuant to the conversion or sale of, or an offer to purchase, all or substantially all of the outstanding Common Stock, whether pursuant to a merger, tender offer or otherwise, or (iv) as a *bona fide* gift to a charity or educational institution; provided, however, that in the case of any transfer described in clauses (i) and (ii) above, it shall be a condition to the transfer that the transferee executes and delivers to the Company not later than one business day prior to such transfer, a written agreement, in substantially the form of this Agreement (it being understood that any references to "immediate family" in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise reasonably satisfactory in form and substance to the Company. For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, father-in-law, mother, mother-in-law, brother or sister of the undersigned.

For the avoidance of doubt, and notwithstanding anything to the contrary in this Agreement:

(i) the Agreement does not include or restrict (A) any shares of Common Stock already owned by the undersigned prior to the Closing, or any shares of Common Stock that are issuable under any convertible promissory notes or warrants owned by the undersigned prior to the Closing, or (B) any shares of Common Stock, or shares of Common Stock that are issuable under any convertible promissory notes or warrants, in either case hereafter purchased by the undersigned other than pursuant to the Purchase Agreement or Warrants (collectively, the "Excluded Securities"). For the avoidance of doubt, shares of Common Stock and warrants acquired in the Uplist are Excluded Securities; and

(ii) the undersigned shall be free, without any restriction under this Agreement, to (A) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, and announce the intention to otherwise dispose of, any of the Excluded Securities or securities convertible into or exercisable or exchangeable for Excluded Securities, (B) enter into any swap, hedge or similar agreement or arrangement with respect to the Excluded Securities or securities convertible into or exercisable or exchangeable for Excluded Securities, and (C) engage in any short selling of the Excluded Securities or securities convertible into or exercisable or exchangeable for Excluded Securities; provided that nothing in this Agreement shall limit the effect of Section 4(j) of the Purchase Agreement.

In order to enable this covenant to be enforced, the undersigned hereby consents to the placing of legends or stop transfer instructions with the Company's transfer agent with respect to any Subject Shares or securities convertible into or exercisable or exchangeable for Subject Shares.

The undersigned further agrees that the Company may, with respect to Subject Shares or any securities convertible into or exercisable or exchangeable for Subject Shares owned or held (of record or beneficially) by the undersigned (but excluding Excluded Securities), cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during the Lock-Up Period (as the same may be extended as described above).

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Agreement and that this Agreement has been duly executed and delivered by the undersigned and is a valid and binding Agreement of the undersigned. This Agreement and all authority herein conferred are irrevocable and shall survive the death or incapacity of the undersigned and shall be binding upon the undersigned and upon the heirs, personal representatives, successors and assigns of the undersigned.

Notwithstanding anything contained herein to the contrary, if the undersigned purchases securities, for cash, in the Uplist with an aggregate purchase price equal to at least 4.3 multiplied by the aggregate Purchase Price paid by the undersigned for Securities under the Purchase Agreement, then the Lock-Up Period shall cease upon the closing of the Uplist.

This Agreement shall be governed by, and construed in accordance with, the law of the State of New York.

Very truly yours,

_____
(Name of Stockholder – Please Print)

_____
(Signature)

Address:

Acknowledged and Agreed:

ARCH THERAPEUTICS, INC.

By: _____
Name:
Title:

Exhibit 23.1

The accompanying consolidated financial statements give effect to a 1-for-8 reverse stock split of the common stock of Arch Therapeutics, Inc. and Subsidiary (the "Company") which will take place immediately prior to the effectiveness of the registration statement. The following consent is in the form which will be furnished by Baker Tilly US, LLP, an independent registered public accounting firm, upon completion of the 1-for-8 reverse stock split of the common stock of the Company described in Note 1 to the consolidated financial statements and assuming that from December 28, 2022, except for the effects of the 1-for-200 reverse stock split described in Note 2, as to which the date is January 23, 2023, to the date of such completion, no other material events have occurred that would affect the consolidated financial statements or the required disclosures therein.

/s/ Baker Tilly, US, LLP
Tewksbury, Massachusetts

November 8, 2023

Consent of Independent Registered Public Accounting Firm

We consent to the use in this amendment to the Registration Statement (No. 333-268008) on Form S-1 of Arch Therapeutics. Inc and Subsidiary (collectively, the "Company") of our report dated December 28, 2022, except for the effects of the 1-for-200 reverse stock split described in Note 2, as to which the date is January 23, 2023 and (November , 2023 as to the effects of the 1-for-8 reverse stock split discussed in Note 1), relating to the consolidated financial statements of the Company as of and for the year ended September 30, 2022 and 2021. Our report includes an explanatory paragraph relating to the Company's ability to continue as a going concern. We also consent to the reference to us under the heading "Experts" in such Registration Statement

Tewksbury, Massachusetts

November , 2023

Exhibit 107

Calculation of Filing Fee Tables

Form S-1
(Form Type)

Arch Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price(1)(2)	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Units consisting of:(3)	Rule 457(o)	___	___	$4,887,500.00	0.0001476	$721.40
Fees to Be Paid	Equity	(i) Common Stock, par value $0.001 per share(4)	___	___	___	___	___	___
Fees to Be Paid	Equity	(ii) one Investor Warrant to purchase one share of Common Stock(4)	___	___	___	___	___	___
Fees to Be Paid	Equity	Pre-Funded Units consisting of:(3)(6)	Rule 457(o)	___	___	___	0.0001476	___
Fees to Be Paid	Equity	(i) one Pre-Funded Warrant to purchase one share of Common Stock(4)	___	___	___	___	___	___
Fees to Be Paid	Equity	(i) one Investor Warrant to purchase one share of Common Stock(4)	___	___	___	___	___	___
Fees to Be Paid	Equity	Common Stock issuable upon exercise of Pre-Funded Warrants (3)(5)	Rule 457(o)	___	___	___	0.0001476	___
Fees to Be Paid	Equity	Common Stock issuable upon exercise of the Investor Warrants(3)(5)	Rule 457(o)	___	___	$4,887,500.00	0.0001476	$721.40
Fees to Be Paid	Equity	Shares of Common Stock offered by the Selling Stockholders in the Resale Prospectus(7)	Rule 457(c)	46,578,524	$0.955	$44,482,490.42	0.0001476	$6,565.62
Fees Previously Paid	___	___	___	___	___	___	___	$22,934.78
Carry Forward Securities	___	___	___	___	___	___	___	___
	Total Offering Amounts					$139,859,668.50		$8,008.42
	Total Fees Previously Paid							$22,934.78
	Total Fee Offsets							$0.00
	Net Fee Due							$0.00

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "**Securities Act**"), there is also being registered hereby such indeterminate number of additional shares of common stock, par value $0.001 per share (the "**Common Stock**"), of Arch Therapeutics, Inc. (the "**Company**"), as may be issued or issuable because of stock splits, stock dividends stock distributions, and similar transactions.
(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.
(3) Includes any additional shares of Common Stock and/or warrants to purchase shares of Common Stock (the "**Investor Warrants**") that may be issued upon exercise of the option granted to the underwriters to cover over-allotments, if any.
(4) No separate registration fee is payable pursuant to Rule 457(g) under the Securities Act.
(5) The Investor Warrants are exercisable at a per share price of 100% of the price per Unit in this offering.
(6) The proposed maximum aggregate offering price of the Units will be reduced on a dollar-for-dollar basis based on the offering price of any Pre-Funded Units issued in the offering, and the proposed maximum aggregate offering price of the Pre-Funded Units to be issued in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Units issued in the offering. Accordingly, the proposed maximum aggregate offering price of the Units and Pre-Funded Units, if any, is $4,887,500.
(7) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act based on a per share price of $0.955, the average of the high and low reported sales prices of the registrant's common stock on the OTCQB on November 2, 2023.