PROSPECTUS SUPPLEMENT NO. 10 DATED JANUARY 5, 2021

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PROSPECTUS DATED DECEMBER 6, 2019

(AS SUPPLEMENTED)

ARCH THERAPEUTICS, INC.

PROSPECTUS

Up to 17,587,461 Shares of Common Stock

This Prospectus Supplement No. 10 supplements the prospectus of Arch Therapeutics, Inc. (the **'Company**', **'we**', **'us**', or **'our**') dated December 6, 2019 (as supplemented to date, the **''Prospectus**') with the following attached documents which we filed with the Securities and Exchange Commission on December 31, 2020 and January 4, 2021, respectively:

- A. Our Current Report on Form 8-K filed with the Securities and Exchange Commission on December 31, 2020.
- B. Our Current Report on Form 8-K filed with the Securities and Exchange Commission on January 1, 2021.

This Prospectus Supplement No. 10 should be read in conjunction with the Prospectus, which is required to be delivered with this Prospectus SupplementThis prospectus supplement updates, amends and supplements the information included in the Prospectus. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this Prospectus Supplement.

This Prospectus Supplement is not complete without, and may not be delivered or utilized except in connection with, the Prospectus, including any amendments or supplements to it.

Investing in our common stock involves a high degree of risk. Before making any investment in our common stock, you should carefully consider the risk factors for our common stock, which are described in the Prospectus, as amended or supplemented.

You should rely only on the information contained in the Prospectus, as supplemented or amended by this Prospectus Supplement No. 10 and any other 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.

The date of this Prospectus Supplement No. 10 is January 5, 2021

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ANNEX A

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 31, 2020

ARCH THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation) **000-54986** (Commission File Number) 46-0524102 (I.R.S. Employer Identification No.)

235 Walnut Street, Suite 6

Framingham, Massachusetts

(Address of principal executive offices)

01702 (Zip Code)

Registrant's telephone number, including area code: (617) 431-2313

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions <u>kee</u> General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
N A	N A	N A

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company \Box

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 13(a) of the Exchange Act.

ITEM 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On December 31, 2020, Arch Therapeutics, Inc. (the "Company") and Richard Davis, the Company's current Chief Financial Officer, entered into a transition agreement (the "Agreement"), under which Mr. Davis agreed to continue in his current role as the Company's Chief Financial Officer until the earlier of (i) when a successor is named and ready to perform the daily duties of Chief Financial Officer, and (ii) June 30, 2021 (such date, the "Transition End Date"), upon which date Mr. Davis will retire as Chief Financial Officer. Pursuant to the Agreement, for a period of six months following the Transition End Date, Mr. Davis will continue to work as an employee of the Company in a non-executive role to provide support and ensure a smooth and successful transition.

Mr. Davis' last day of employment with the Company will be the six-month anniversary of the Transition End Date (the "Retirement Date"). Pursuant to the terms of the Agreement, from January 1, 2021 and continuing until the Retirement Date, Mr. Davis will continue to be entitled to his full base salary and benefits as set forth in Mr. Davis' Employment Agreement. As of the Retirement Date, Mr. Davis will be eligible to participate in COBRA at his own expense. The Agreement includes other customary provisions including non-disparagement.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ARCH THERAPEUTICS, INC.

By: /s/ Terrence W. Norchi, M.D. Name: Terrence W. Norchi, M.D. Title: President, Chief Executive Officer

ANNEX B

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

FORM 8-K

CURRENT REPORT

Dated: December 31, 2020

Date of Report (Date of earliest event reported): January 4, 2021

ARCH THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation) **000-54986** (Commission File Number) **46-0524102** (I.R.S. Employer Identification No.)

235 Walnut Street, Suite 6 Framingham, Massachusetts (Address of principal executive offices)

01702 (Zip Code)

Registrant's telephone number, including area code: (617) 431-2313

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions <u>kee</u> General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

		Name of each exchange on which
Title of each class	Trading Symbol(s)	registered
N A	N A	N A

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company \Box

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 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

On January 4, 2021, Arch Therapeutics, Inc. (the 'Company'') issued a press release announcing its entrance into a distribution and sales administration agreement with Buffalo Supply, Inc. ("BSI"), pursuant to which BSI will serve as the Company's exclusive distributor for products sold to United States government facilities worldwide.

The text of the press release is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

Item 8.01 Other Events.

The disclosure under Item 7.01 (Regulation FD Disclosure) is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits

(d) The following exhibits are being filed herewith:

Exhibit Description

99.1 Press Release issued by Arch Therapeutics, Inc. on January 4, 2021

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ARCH THERAPEUTICS, INC.

By: /s/ Terrence W. Norchi, M.D.

Name: Terrence W. Norchi, M.D. Title: President, Chief Executive Officer

Dated: January 4, 2021

Exhibit 99.1

Arch Therapeutics Announces Distribution Agreement with Buffalo Supply, Inc.

Partnership provides US government facilities access and product distribution support

FRAMINGHAM, Mass., January 4, 2021 (GLOBE NEWSWIRE) -- Arch Therapeutics, Inc. (OTCQB: ARTH) ("Arch" or the "Company"), developer of novel self-assembling wound care and biosurgical devices, announced today that it has entered into a distribution and sales administration agreement with Buffalo Supply, Inc. ("Buffalo Supply" or "BSI") to be the exclusive distributor for products sold to United States government facilities worldwide.

Buffalo Supply will place Arch products on their federal contracts and maintain compliance with Federal Acquisition Regulations (FARs), in addition to coordinating the processing of purchase orders and collection of payments for Arch products that are sold to Veterans Healthcare Administration ("VA") hospitals and facilities, military hospitals, and other government channels. Under the terms of the agreement, BSI will employ its contracting and marketing expertise to support distribution of Arch Therapeutics' products. Arch's first product in the United States, AC5[®] Advanced Wound System, is based on the Company's innovative self-assembling peptide technology platform.

Richard Davis, Chief Financial Officer of Arch Therapeutics, said, "We are pleased to partner with BSI as they have a track record of securing government contracts. Their professional contract management services will support and streamline the processing of valued government orders."

T.J. Jackson, President and Chief Executive Officer of Buffalo Supply, said, "We have built our business by providing innovative, high quality products to our service members and veterans. Arch's current and pipeline product offerings fit that partner profile, and we are excited to be able to work with them to support the needs of this important patient population. We look forward to a long-term and very successful relationship with Arch Therapeutics."

Terrence Norchi, MD, President and Chief Executive Officer of Arch, commented, "We look forward to providing our first class products to veterans as well as government and military personnel in concert with BSI and the independent sales representatives we have identified. We plan on establishing additional commercialization partnerships and building a critical mass of sales representatives."

About Arch Therapeutics, Inc.

Arch Therapeutics, Inc. is a biotechnology company developing a novel approach to stop bleeding (hemostasis), control leaking (sealant) and manage wounds during surgery, trauma and interventional care. Arch is developing products based on an innovative self-assembling barrier technology platform with the goal of making care faster and safer for patients. Arch's products authorized for commercial marketing are $AC5^{\mbox{\sc N}}$ Advanced Wound System and $AC5^{\mbox{\sc N}}$ Topical Hemostat.¹ Arch's development stage product candidates include AC5- $G^{\mbox{\sc N}}$, AC5- $V^{\mbox{\sc N}}$ and $AC5^{\mbox{\sc N}}$ Surgical Hemostat, among others², ³

About Buffalo Supply, Inc.

Buffalo Supply, Inc. provides high-quality medical supplies and high-tech medical equipment to the Federal Government, and has since 1983. Buffalo Supply has numerous Federal Supply Schedule contracts with products to satisfy a wide variety of operating room and health care needs. Through our diligent work and extensive experience in the federal marketplace, Buffalo Supply has developed a high level of expertise in helping federal institutions efficiently meet their objectives of providing high quality health care at competitive prices.

Notice Regarding Forward-Looking Statements

This news release contains "forward-looking statements" as that term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements in this press release that are not purely historical are forward-looking statements and include any statements regarding beliefs, plans, expectations or intentions regarding the future. Such forward-looking statements include, among other things, references to novel technologies and methods, our business and product development plans and projections, or market information. Actual results could differ from those projected in any forward-looking statements due to numerous factors. Such factors include, among others, the inherent uncertainties associated with developing new products or technologies and operating as a development stage company, our ability to retain important members of our management team and attract other qualified personnel, our ability to raise the additional funding we will need to continue to pursue our business and product development plans, our ability to obtain required regulatory approvals, our ability to produce commercial quantities of our products within projected timeframes, our ability to develop and commercialize products based on our technology platform, and market conditions, and our ability to establish additional commercialization partnerships and build a critical mass of field sales representatives. These forward-looking statements are made as of the date of this news release, and we assume no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements. Although we believe that any beliefs, plans, expectations and intentions contained in this press release are reasonable, there can be no assurace that any such beliefs, plans, expectations or intentions we file with the SEC, available at www.sec.gov.

Source: Arch Therapeutics, Inc.

Contact ARTH Investor Relations Toll Free: +1-855-340-ARTH (2784) (US and Canada) Email: investors@archtherapeutics.com Website: www.archtherapeutics.com

or

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³ AC5, AC5-G, AC5-V and associated logos are trademarks and/or registered trademarks of Arch Therapeutics, Inc. and/or its subsidiaries.

 ¹ AC5 Advanced Wound System and AC5 Topical Hemostat have received regulatory authorization for commercial marketing as medical devices in the USA and EU, respectively.
² AC5-G, AC5-V, and AC5 Surgical Hemostat are currently investigational devices limited by law to investigational use.