

PROSPECTUS SUPPLEMENT NO. 4 DATED SEPTEMBER 2, 2021
TO
PROSPECTUS DATED MARCH 10, 2021
(AS SUPPLEMENTED)

ARCH THERAPEUTICS, INC.

PROSPECTUS

Up to 82,589,497 Shares of Common Stock

This Prospectus Supplement No. 4 supplements the prospectus of Arch Therapeutics, Inc. (the “Company”, “we”, “us”, or “our”) dated March 10, 2021 (as supplemented to date, the “Prospectus”) with the following attached documents:

1. Our Current Report on Form 8-K filed with the Securities and Exchange Commission on September 2, 2021.

This Prospectus Supplement No. 4 should be read in conjunction with the Prospectus, which is required to be delivered with this Prospectus Supplement. This 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. 4 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. 4 is September 2, 2021

INDEX TO FILINGS

The Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission on September 2, 2021

Annex
A

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): August 30, 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

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

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 September 2, 2021, Arch Therapeutics, Inc. (the “**Company**”) issued a press release announcing its entrance into a non-exclusive distribution agreement with Lovell Government Services (“**LGS**”), pursuant to which LGS will support and drive sales of the Company’s products through the Veteran’s Affairs hospitals and other governmental medical facilities. Simultaneous with this announcement, the Company and Buffalo Supply, Inc. mutually agreed to terminate the existing exclusive distribution agreement entered into last year.

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 Exhibit

(d) The following exhibits are being filed herewith:

| Exhibit | Description |
|---------|---|
| 99.1 | Press Release issued by Arch Therapeutics, Inc. on September 2, 2021. |
| 104 | Cover Page Interactive Data File (embedded within the Inline XBRL Document) |

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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.

Dated: September 2, 2021

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

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Exhibit 99.1

Arch Therapeutics Partners with Lovell Government Services to Expand Distribution Capabilities

FRAMINGHAM, MA – September 2, 2021 – Arch Therapeutics, Inc. (OTCQB: ARTH) (“**Arch**” or the “**Company**”), a marketer and developer of novel self-assembling wound care and biosurgical devices, today announced that it has entered into a non-exclusive distribution agreement with Lovell Government Services (“**LGS**”), a Service-Disabled Veteran-Owned Small Business (“**SDVOSB**”), to support and drive sales through the Veteran’s Affairs hospitals and other governmental medical facilities. The partnership is intended to result in the inclusion of the Company’s AC5[®] Advanced Wound System on targeted federal supply schedules. Simultaneous with this announcement, the Company and Buffalo Supply, Inc. (“**Buffalo Supply**”) mutually agreed to terminate the existing exclusive distribution agreement entered into last year.

“Partnering with an SDVOSB, especially one with the reputation of LGS, to drive distribution into the government is intended to provide several strategic advantages, most

notably speed to market and enhanced access to multiple government contracting channels,” stated Dan Yrigoyen, Vice President of Sales for Arch Therapeutics. “We thank Buffalo Supply for their past support and work done to date. Our new SDVOSB partnership is an exciting next step in our progress, and it represents an important element of our overall commercialization strategy,” concluded Mr. Yrigoyen.

“Lovell is excited to bring the healing power of Arch Therapeutics’ technology to the Veterans and Department of Defense Hospital Systems,” says Chris Lovell, CEO and Founder of Lovell Government Services.

LGS partners with medical and pharmaceutical companies looking to better serve military and veteran patient populations. With this partnership, Federal, State, and Local Government Agencies can place their order for AC5[®] Advanced Wound System through appropriate contract vehicles while meeting their SDVOSB procurement goals.

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 has received regulatory authorization to market AC5[®] Advanced Wound System and AC5 Topical Hemostat as medical devices in the United States and Europe, respectively. Arch's development stage product candidates include AC5-G, AC5-V and AC5 Surgical Hemostat, among others.^{1,2}

¹ AC5-G, AC5-V, and AC5 Surgical Hemostat are currently investigational devices limited by law to investigational use.

² AC5, AC5-G, AC5-V and associated logos are trademarks and/or registered trademarks of Arch Therapeutics, Inc. and/or its subsidiaries.

About Lovell Government Services

Lovell Government Services was established by Chris Lovell, Major USMC Retired, in 2013. Lovell’s mission is to serve the Veterans Administration (VA) Hospital System, the U.S. Military Medical Networks, other Federal Healthcare Systems, and the communities they support. Lovell is a certified Service-Disabled Veteran-Owned Small Business (SDVOSB) and ECAT, FSS, DAPA, and GSA contract holder. Lovell partners with Medical and Pharmaceutical Suppliers to fast track and distribute the latest in life-saving technologies to the Federal Government as their Federal Vendor. Lovell Government Services helps companies win government contracts and government sales. Learn more at www.lovellgov.com.

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 ability to recruit additional field sales representatives and their effectiveness, 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 obtain the inclusion of our AC5[®] Advanced Wound System on targeted federal supply schedules, 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 assurance that any such beliefs, plans, expectations or intentions will prove to be accurate. Investors should consult all of the information set forth herein and should also refer to the risk factors disclosure outlined in the reports and other documents we file with the SEC, available at www.sec.gov.

Contact:

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or

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