

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

**FORM S-8**

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**ARCH THERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

**Nevada**  
(State or other jurisdiction of  
incorporation or organization)

**46-0524102**  
(I.R.S. Employer  
Identification No.)

**235 Walnut Street, Suite 6**  
**Framingham, MA 01702**  
(Address of Principal Executive Offices and Zip Code)

**ARCH THERAPEUTICS, INC. 2013 STOCK INCENTIVE PLAN**  
(Full title of the plan)

**Terrence W. Norchi**  
**Chief Executive Officer**  
**Arch Therapeutics, Inc.**  
**235 Walnut Street, Suite 6**  
**Framingham, MA 01702**  
(Name and address of agent for service)

**(617) 431-2313**  
(Telephone number, including area code, of agent for service)

*Copy to:*  
**John D. Hogboom, Esq.**  
**Lowenstein Sandler LLP**  
**65 Livingston Avenue**  
**Roseland, New Jersey 07068**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "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   
(Do not check if a 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 13(a) of the Exchange Act.

**CALCULATION OF REGISTRATION FEE**

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, par value \$0.001 per share	3,000,000	\$ 0.78	\$ 2,340,000	\$ 291.33

(1) Represents the number of additional shares of common stock, par value \$0.001 per share ("Common Stock"), of Arch Therapeutics, Inc. (the "Company" or "Registrant"), that may be issued in connection with the Arch Therapeutics, Inc. 2013 Stock Incentive Plan (the "Plan"). In addition, pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration

Statement also registers such additional shares of Common Stock as may be offered or issued under the Plan to prevent dilution from stock splits, stock dividends, or similar transactions.

- (2) Estimated solely for purposes of calculating the amount of the registration fee, pursuant to Rules 457(c) and 457(h)(1) of the Securities Act, the proposed maximum offering price per share and the proposed maximum aggregate offering price for the shares have been determined on the basis of the average of the high and low prices of the registrant's Common Stock reported on the OTCQB tier of the OTC Marketplace on October 10, 2017, which were \$0.77 and \$0.79, respectively.

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**STATEMENT REGARDING REGISTRATION OF ADDITIONAL SECURITIES PURSUANT TO GENERAL INSTRUCTION  
E**

This registration statement on Form S-8 (this “**Registration Statement**”) is filed by Arch Therapeutics, Inc. (the “**Company**” or “**Registrant**”), to register an additional 3,000,000 shares of the Registrant’s common stock, par value \$0.001 per share (the “**Common Stock**”), which may be issued under the Arch Therapeutics, Inc. 2013 Stock Incentive Plan (the “**Plan**”).

Pursuant to Section 3(a) of the Plan, on the first business day of each fiscal year commencing with the fiscal year beginning October 1, 2013, the number of shares of Common Stock issuable under the Plan for all awards except for incentive stock option awards automatically increase by an amount equal to the lesser of (A) 3,000,000 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 “**Annual Increase**”). Since the number of shares of Common Stock outstanding as of September 30, 2017, the last day of the immediately preceding fiscal year, was 153,692,857 shares, the Annual Increase for the fiscal year commencing October 1, 2017 is 3,000,000 shares of Common Stock.

Pursuant to the Registration Statements on Form S-8 filed by the Registrant on January 23, 2014 (Registration No. 333-193516), December 23, 2014 (Registration No. 333-201229), October 7, 2015 (Registration No. 333-207314) and November 4, 2016 (Registration No. 333-214429), respectively (collectively, the “**Prior Registration Statements**”), the Registrant previously registered an aggregate of 19,676,958 shares of Common Stock. The additional shares of Common Stock being registered by this Registration Statement are of the same class as those securities registered on the Prior Registration Statements and represent an increase in the total shares of Common Stock that have been registered for sale under the Securities Act from 19,676,958 to 22,676,958. The contents of the Prior Registration Statements, together with all exhibits filed therewith or incorporated therein by reference to the extent not otherwise amended or superseded by the contents hereof or otherwise, are incorporated herein by reference in accordance with General Instruction E to Form S-8.

**PART I**

**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

The documents containing the information specified in Part I of this Registration Statement have been or will be sent or given to participating employees as specified in Rule 428(b)(1) of the Securities Act in accordance with the rules and regulations of the United States Securities and Exchange Commission (the “**SEC**”). Such documents are not being filed with the SEC either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. These documents and the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Certain Documents by Reference.

The following documents, filed with the SEC by the Company, are incorporated by reference into this Registration Statement:

- (a) the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 filed with the SEC on December 5, 2016, pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act");
- (b) the Company's Quarterly Reports on Form 10-Q for the quarters ended December 31, 2016, March 31, 2017, and June 30, 2017, filed with the SEC on February 1, 2017, May 2, 2017, and July 27, 2017, respectively,
- (c) the Company's Current Reports on Form 8-K, filed with the SEC on September 29, 2016, October 31, 2016, February 2, 2017, February 16, 2017, February 21, 2017, June 6, 2017, July 25, 2017 and September 12, 2017, respectively, in each case pursuant to the Exchange Act; and
- (d) the description of the Company's Common Stock, which is contained in the Company's Registration Statement on Form 8-A, filed with the SEC on June 26, 2013, together with any amendment or report filed with the SEC for the purpose of updating this description.

In addition, all documents filed by the Company with the SEC pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all the securities offered hereby have been sold or which deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of the filing of such documents with the SEC; *provided, however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference in this Registration Statement, including any portion of any future annual or quarterly report to stockholders or document or current report furnished under Items 2.02 or 7.01 of Form 8-K that is not deemed filed under such provisions. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof to the extent that a statement contained herein (or in any other subsequently filed document which also is incorporated by reference herein) modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed to constitute a part hereof except as so modified or superseded.

#### Item 8. Exhibits.

The Exhibits to this Registration Statement are listed in the Index to Exhibits and are incorporated herein by reference.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-8 and 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 October 12, 2017.

Arch Therapeutics, Inc.

/s/ Terrence W. Norchi, MD

Terrence W. Norchi, MD

President and Chief Executive Officer

## SIGNATURES AND POWER OF ATTORNEY

**KNOW ALL MEN BY THESE PRESENTS**, that we, the undersigned officers and directors of Arch Therapeutics, Inc., a Nevada corporation (the “**Company**”), do hereby constitute and appoint each of Terrence W. Norchi and Richard E. Davis as his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments, exhibits thereto and other documents in connection therewith) to this Registration Statement and any subsequent registration statement filed by the registrant pursuant to Rule 462(b) of the Securities Act of 1933, as amended, which relates to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Terrence W. Norchi, MD</u> Terrence W. Norchi, MD	President, Chief Executive Officer, and Director (Principal Executive Officer)	October 12, 2017
<u>/s/ Richard E. Davis</u> Richard E. Davis	Chief Financial Officer (Principal Financial and Accounting Officer)	October 12, 2017
<u>/s/ Avtar Dhillon, MD</u> Avtar Dhillon, MD	Director	October 12, 2017
<u>/s/ James R. Sulat</u> James R. Sulat	Director	October 12, 2017

## INDEX TO EXHIBITS

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
<u>4.1</u>	<u>Restated Articles of Incorporation of Arch Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Annual Report on Form 10-K filed by the Company with the SEC on December 12, 2014)(File Number 000-54986)</u>
<u>4.2</u>	<u>Amended and Restated Bylaws of Arch Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed by the Company with the SEC on June 24, 2013)(File Number 333-178883)</u>
<u>10.1</u>	<u>Arch Therapeutics, Inc. 2013 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company with the SEC on June 24, 2013)(File Number 333-178883)</u>
<u>10.2</u>	<u>Form of Stock Option Award Agreement under Arch Therapeutics, Inc. 2013 Stock Incentive Plan (incorporated by reference to Exhibit 10.13 to the Quarterly Report on Form 10-Q filed by the Company with the SEC on August 14, 2013)(File Number 000-54986)</u>
<u>10.3</u>	<u>Form of Restricted Stock Unit Award Agreement under Arch Therapeutics, Inc. 2013 Stock Incentive Plan (incorporated by reference to Exhibit 10.14 to the Quarterly Report on Form 10-Q filed by the Company with the SEC on August 14, 2013) (File Number 000-54986)</u>
<u>10.4</u>	<u>Form of Restricted Stock Bonus Award Agreement under Arch Therapeutics, Inc. 2013 Stock Incentive Plan (incorporated by reference to Exhibit 10.15 to the Quarterly Report on Form 10-Q filed by the Company with the SEC on August 14, 2013) (File Number 000-54986)</u>
<u>5.1*</u>	<u>Opinion of McDonald Carano LLP.</u>
<u>23.1*</u>	<u>Consent of McDonald Carano LLP (included in Exhibit 5.1 hereto).</u>
<u>23.2*</u>	<u>Consent of Moody, Famiglietti &amp; Andronico, LLP.</u>
<u>24.1*</u>	<u>Power of Attorney (included on the signature page of this Registration Statement).</u>

\* Filed herewith.

October 12, 2017

Arch Therapeutics, Inc.  
235 Walnut Street, Suite 6  
Framingham, MA 01702

Re: *Registration Statement/Form S-8*  
*2013 Stock Incentive Plan*

Gentlemen:

At your request, we have examined the Registration Statement on Form S-8 to be filed with the Securities and Exchange Commission (the “SEC”) by Arch Therapeutics, Inc. (the “Company”) in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 3,000,000 additional shares of the Company’s common stock, \$0.001 par value (the “Plan Shares”), which will be issuable under the Company’s 2013 Stock Incentive Plan (the “Plan”).

In connection with our review, we have examined the proceedings taken by the Company in connection with the adoption of the Plan and the authorization of the issuance of the Plan Shares, and such documents as we have deemed necessary to render this opinion, including the Company’s Bylaws and Articles of Incorporation, as amended. For the purpose of the opinion rendered below, we have assumed that in connection with the issuance of the Plan Shares, the Company will receive consideration in an amount not less than the aggregate par value of the Plan Shares covered by each such issuance.

Based upon and subject to the foregoing, it is our opinion that the Plan Shares, when issued and outstanding pursuant to the terms of the Plan, will be validly issued, fully paid and non-assessable. We consent to the use of this opinion as an exhibit to the Registration Statement.

Sincerely,

*/s/ McDonald Carano LLP*  
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McDONALD CARANO LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 of Arch Therapeutics, Inc. and Subsidiary (collectively, the “**Company**”) pertaining to the Arch Therapeutics, Inc. 2013 Stock Incentive Plan, of our report dated December 5, 2016, relating to the consolidated financial statements of the Company appearing in the Annual Report on Form 10-K for the year ended September 30, 2016.

/s/ Moody, Famiglietti & Andronico, LLP

Tewksbury, Massachusetts  
October 12, 2017

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