Arch Therapeutics, Inc.
Form 424B3
April 16, 2015

Filed Pursuant to Rule 424(b)(3)

Registration No. 333-194745

PROSPECTUS SUPPLEMENT NO. 18 DATED APRIL 16, 2015

TO

PROSPECTUS DATED JULY 2, 2014

(AS SUPPLEMENTED)

ARCH THERAPEUTICS, INC.

PROSPECTUS

Up to 45,600,000 Shares of Common Stock

This Prospectus Supplement No. 18 supplements the prospectus of Arch Therapeutics, Inc. ("the "Company", "we", "us", or "our") dated July 2, 2014 (as supplemented to date, the "Prospectus") with the following attached document which we filed with the Securities and Exchange Commission on April 16, 2015:

A. Our Current Report on Form 8-K filed with the Securities and Exchange Commission on April 16, 2015

This Prospectus Supplement No. 18 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. 18 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.18 is April 16, 2015

INDEX TO FILINGS

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): **April 16, 2015**

ARCH THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

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

235 Walnut Street, Suite 6
Framingham, Massachusetts 01702
(Address of principal executive offices) (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 (see 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))

Item 8.01 Other Events.

On April 16, 2015, Arch Therapeutics, Inc. (the "Company") issued a press release announcing favorable data comparing its AC5™ to a popular combination hemostat. The text of the press release is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

Item 9.01 Financial Statements and Exhibit

(d) Exhibits

Exhibit	**Description**
99.1	Press Release issued by Arch Therapeutics, Inc. on April 16, 2015

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: April 16, 2015 By: /s/ Terrence W. Norchi, M.D.
Name: Terrence W. Norchi, M.D.
Title: President, Chief Executive Officer

EXHIBIT INDEX

Exhibit	Description
99.1	Press Release issued by Arch Therapeutics, Inc. on April 16, 2015

Exhibit 99.1

Arch Therapeutics' AC5™ Compared Favorably vs. Commercially Available Combination Hemostat in Animal Study

Data Shows Time to Hemostasis with AC5 Significantly Less Than Compared Product

FRAMINGHAM, MA – April 16, 2015 -- Arch Therapeutics, Inc. (OTCQB: ARTH) ("Arch" or the "Company"), developer of the AC5 Surgical Hemostatic Device™ (AC5™) for use in controlling bleeding and fluid loss in order to provide faster and safer surgical and interventional care, announced that an independent third party has obtained favorable data from an animal study that compared the hemostatic activity of AC5 with a commercially available branded hemostat consisting of a flowable gelatin combined with thrombin.

In this study, full thickness penetrating wounds were surgically created in rat livers, which are highly vascularized parenchymal organs, and then either AC5™ or gelatin-thrombin hemostat was applied in order to stop the bleeding. The time to hemostasis (TTH), which is the time required to stop bleeding, was measured.

The average TTH after application of AC5 was significantly less than 30 seconds, whereas the average TTH after application of the gelatin-thrombin hemostat was over 200% longer.

AC5 was maintained at room temperature without requiring cold storage, whereas the thrombin component of the gelatin-thrombin hemostat was maintained frozen during storage, in accordance with its prescribing directions. This is a common constraint of many commercial hemostatic agents that are derived from blood-products. Such products also require a multi-step preparation procedure prior to use.

The thrombin component of the gelatin-thrombin hemostat is made from pooled human plasma and, therefore, carries a risk of transmitting infectious agents. In general, products of human origin present increased risk due to the potential to transfer infections. The gelatin component of the gelatin-thrombin hemostat is derived from pigskins. Gelatin can carry an increased specific risk for causing allergic reactions in some patients because it is animal sourced. AC5 contains a self-assembling peptide comprising naturally occurring amino acids that are not sourced from humans or animals.

The study group intends to submit the data for publication, at which time additional details would be made publicly available. This study is one of series of animal trials comparing AC5 with currently marketed hemostatic products that are used in surgical procedures.

Terrence W. Norchi, MD, President and CEO of Arch Therapeutics, said, “We believe that the Arch technology holds great potential in addressing a range of unmet clinical needs, the first of which is surgical hemostasis. Data from the studies conducted to date indicate that AC5 continues to perform favorably versus well-established hemostatic products, including those based on cellulose, gelatin, gelatin-thrombin, and fibrin. Other noteworthy features of AC5 include ease of use, simple preparation, room temperature storage and lack of human or other animal sourcing.”

The research was led by Rudolf Urbanics, MD, PhD, and Domokos Csukas, DVM at Semmelweis University Faculty of Medicine in Budapest, Hungary within the Department of Surgical Research and Techniques. The research was sponsored by Arch. Also part of the research team was Dr. Rutledge Ellis-Behnke, Director of the Nanomedicine Translational Think Tank in the Department of Ophthalmology at the Medical Faculty Mannheim of the University of Heidelberg in Germany. Dr. Ellis-Behnke is also affiliated with three U.S. academic institutions, and he is an advisor to and co-founder of Arch.

About Arch Therapeutics, Inc.

Arch Therapeutics, Inc. is a medical device company developing a novel approach to stop bleeding (hemostasis) and control leaking (sealant) during surgery and trauma care. Arch is developing products based on an innovative self-assembling peptide technology platform to make surgery and interventional care faster and safer for patients. Arch's flagship development stage product candidate, known as the AC5 Surgical Hemostatic Device ™, is being designed to achieve hemostasis in minimally invasive and open surgical procedures.

Notice Regarding Forward-Looking Statements

This news release contains "forward-looking statements" as that term is defined in Section 27(a) of the Securities Act of 1933, as amended, and Section 21(e) 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 develop and commercialize products based on our technology platform, and market conditions. 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.

On Behalf of the Board,

Terrence W. Norchi, MD

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

Richard Davis

Chief Financial Officer

Arch Therapeutics, Inc.

Phone: 617-431-2308

Email: rdavis@archtherapeutics.com

Website: www.archtherapeutics.com