

**PROSPECTUS SUPPLEMENT NO. 11 DATED SEPTEMBER 9, 2015
TO
PROSPECTUS DATED MAY 22, 2015
(AS SUPPLEMENTED)**

ARCH THERAPEUTICS, INC.

PROSPECTUS

Up to 31,279,926 Shares of Common Stock

This Prospectus Supplement No. 11 supplements the prospectus of Arch Therapeutics, Inc. (“the **Company**”, “**we**”, “**us**”, or “**our**”) dated May 22, 2015 (as supplemented to date, the “**Prospectus**”) with the following attached document which we filed with the Securities and Exchange Commission on September 9, 2015:

A. Our Current Report on Form 8-K filed with the Securities and Exchange Commission on September 9, 2015

This Prospectus Supplement No. 11 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. 11 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. 11 is September 9, 2015

INDEX TO FILINGS

	<u>Annex</u>
The Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission on September 9, 2015	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): **September 8, 2015**

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 (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))
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Item 1.01 Entry into a Material Definitive Agreement.

As previously disclosed in a Current Report on Form 8-K filed with the Securities and Exchange Commission (the “SEC”) on March 13, 2015 (the “Original 8-K”), on March 13, 2015, Arch Therapeutics, Inc. (the “Company”) issued three (3) unsecured 2016 8% Convertible Notes (the “Convertible Notes”) in the aggregate principal amount of \$250,000 to each of Anson Investments Master Fund, LP. (“Anson”), Capital Ventures International (“CVI”) and Equitec Specialists, LLC (“Equitec”). In May 2015, Equitec assigned its Convertible Note to an affiliate, Intracoastal Capital, LLC (“Intracoastal”).

As reported in the Original 8-K, upon issuance, the Convertible Notes were scheduled to become due and payable on March 13, 2016 (the “Stated Maturity Date”) and may be converted, in whole or in part, into the number of shares of the Company’s common stock, \$0.001 par value per share (“Common Stock”), determined by dividing (a) the aggregate sum of the (i) principal amount of the Convertible Note to be converted, and (ii) amount of any accrued but unpaid interest with respect to such portion of the Convertible Note to be converted; and (b) the conversion price then in effect, which is currently \$0.20 per share. On September 8, 2015, the Company, along with Anson, CVI and Intracoastal, entered into a series of substantially similar subordination agreements with the Massachusetts Life Sciences Center (“MLSC”) and such agreements, the “MLSC Subordination Agreements”), pursuant to which the holders of the Convertible Notes agreed to subordinate their right to payment under the Convertible Notes to MLSC’s right to receive payments under the Life Sciences Accelerator Funding Agreement that the Company entered into on September 30, 2013 with MLSC (the “MLSC Loan Agreement”).

Under the terms of the MLSC Subordination Agreements, the indebtedness accrued under the Convertible Notes may not be repaid unless and until all indebtedness and fees owed to MLSC under the MLSC Loan Agreement are repaid in full, but the right to convert the Convertible Notes into shares of Common Stock is expressly allowed. In addition, in the event that the Stated Maturity Date occurs and repayment of the indebtedness accrued under the Convertible Notes is not permitted under the MLSC Subordination Agreements, the MLSC Subordination Agreements provide that (1) the term of the Convertible Notes and the holders’ rights to convert such Convertible Notes into shares of Common Stock will automatically be extended until repayment is permitted under the MLSC Subordination Agreements; and (2) interest will continue to accrue at a rate equal to eight percent (8.0%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum.

The foregoing description of the Convertible Notes and the Subscription Agreements does not purport to be complete and is qualified in its entirety by reference to the copies of (i) the form of Convertible Note attached as [Exhibit 10.2](#) to the Original 8-K; and (ii) the form of MLSC Subordination Agreement attached hereto as [Exhibit 10.1](#) to this Current Report on Form 8-K, both of which are incorporated herein by reference.

Item 9.01 Financial Statements and Exhibit

(d) Exhibits

<u>Exhibit</u>	<u>Description</u>
10.1	Form of MLSC Subordination Agreement

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 9, 2015

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

Name: Terrence W. Norchi, M.D.

Title: President, Chief Executive Officer

Exhibit List

Exhibit	Description
10.1	Form of MLSC Subordination Agreement

SUBORDINATION AGREEMENT

This Subordination Agreement (this "Agreement") dated September __, 2015, is between _____ (the "Subordinated Creditor"), Massachusetts Life Sciences Center ("Senior Creditor") and Arch Therapeutics, Inc. ("Borrower").

Recitals

A. Borrower has obtained credit from Senior Creditor.

B. _____ ("Subordinated Creditor"), having an address at _____, has extended credit to Borrower pursuant to that certain 8% Convertible Note issued by the Borrower to Subordinated Creditor on March 13, 2015 (the "Convertible Note").

C. To induce Senior Creditor to extend credit to Borrower and make further extensions of credit to or for Borrower, or to purchase or extend credit pursuant to any instrument or writing on which Borrower is liable or to grant renewals or extensions of any loan, extension of credit, purchase, or other accommodation, Subordinated Creditor will subordinate all of Borrower's indebtedness and obligations to Senior Creditor with respect to the Convertible Note (together with any additional indebtedness subject to subordination pursuant to Section 7, the "Subordinated Debt"), to all of Borrower's indebtedness and obligations to Senior Creditor (the "Senior Debt") pursuant to a certain Life Sciences Accelerator Funding Agreement dated September 30, 2013 by and between Borrower and Senior Creditor (the "Loan Agreement"), as further amended from time to time.

THE PARTIES AGREE AS FOLLOWS:

1. All Subordinated Debt payments are subordinated to Senior Creditor's right to full payment and performance of the Senior Debt and all of Borrower's other obligations to Senior Creditor existing now or later, together with collection costs of the Loan (as defined in the Loan Agreement), including attorneys' fees, and including any interest accruing after any bankruptcy, reorganization or similar proceeding and all obligations under the Loan Agreement.

2. No Subordinated Creditor will:

a) demand or receive from Borrower (and Borrower will not pay) any part of the Subordinated Debt, by payment, prepayment, or otherwise, which may now or hereafter be owing by Borrower to either Subordinated Creditor, or

b) accelerate the Subordinated Debt, or begin to or participate in any action against Borrower with respect to such Subordinated Debt, until all the Senior Debt is paid, or

c) assign any of the Subordinated Debt or any collateral security therefore without notice to or consent of Senior Creditor and unless assigned pursuant to an assignment made expressly subject to this Agreement.

For the avoidance of doubt, nothing in this Agreement shall prohibit Subordinated Creditor from converting any Subordinated Debt into equity securities of Borrower or exercising any rights as a stockholder of the Borrower.

3. Except with respect to any equity securities of Borrower received upon the conversion of any Subordinated Debt in accordance with the terms of such Subordinated Debt, Subordinated Creditor must deliver to Senior Creditor in the form received (except for endorsement or assignment by Subordinated Creditor) any payment, distribution, security or proceeds it receives on the Subordinated Debt other than according to this Agreement.

4. These provisions remain in full force and effect, despite Borrower's insolvency, reorganization or any case or proceeding under any bankruptcy or insolvency law, and Senior Creditor's claims against Borrower and Borrower's estate will be fully paid before any payment is made to Subordinated Creditor with respect to the Subordinated Debt.

5. Until the Senior Debt is paid, Subordinated Creditor irrevocably appoints Senior Creditor as its attorney-in-fact, with power of attorney with power of substitution, in Subordinated Creditor's name or in Senior Creditor's name, for Senior Creditor's use and benefit without notice to Subordinated Creditor, to do the following in any bankruptcy, insolvency or similar proceeding involving Borrower:

a) File any claims for the Subordinated Debt for Subordinated Creditor if Subordinated Creditor does not do so at least 30 days before the time to file claims expires, and

b) Accept or reject any plan of reorganization or arrangement for Subordinated Creditor and vote Subordinated Creditor's claims in respect of the Subordinated Debt in any way it chooses.

6. Subordinated Creditor will immediately either put a legend on the Subordinated Debt instruments that the instruments are subject to this Agreement or affix this Agreement to the Subordinated Debt instruments. No amendment of the Subordinated Debt documents will modify this Agreement in any way that terminates or impairs the subordination of the Subordinated Debt or the subordination of the security interest or lien that Senior Creditor has in Borrower's property.

7. In the event Subordinated Creditor enters into any other agreement during the term of this Agreement to extend credit to Borrower while a shareholder of Borrower, such indebtedness shall be deemed to be Subordinated Debt for purposes of this Agreement.

8. In the event the Convertible Note has not been converted in its entirety by the Stated Maturity Date (as defined in the Convertible Note) and such indebtedness under the Convertible Note remains subject to the terms of this Agreement, (i) the Stated Maturity Date and the period during which Subordinated Creditor shall have the right to convert such Convertible Note into equity securities of Borrower will automatically be extended until the date the Senior Debt has been repaid; and (ii) interest will continue to accrue on indebtedness outstanding under the Convertible Note at a rate equal to eight percent (8.0%) (computed on the basis of the actual number of days elapsed in a 360-day year) per annum (collectively, the "**Note Amendment**"); *provided, however*, the Note Amendment shall be of no force or effect unless and until the conditions set forth in Section 7 of the Convertible Note have been satisfied. This Section 8 shall constitute one of several consents to be delivered in accordance with Section 7 of the Convertible Note.

9. This Agreement shall be binding upon Subordinated Creditor, their respective successors or assigns, and shall inure to the benefit of and be enforceable by Senior Creditor and its successors or assigns.

10. This Agreement shall terminate upon the date on which the Senior Debt shall have been paid in cash in full.

11. Senior Creditor may administer and manage its credit and other relationships with Borrower in its own best interest, without notice or consent of Subordinated Creditor. At any time and from time to time, Senior Creditor may enter into any amendment or agreement with Borrower as Senior Creditor may deem proper.

12. All conditions, covenants, duties and obligations contained in this Agreement can be waived only by written agreement. Forbearance or indulgence in any form or manner by a party shall not be construed as a waiver, nor in any way limit the remedies available to that party.

13. All communications to the Senior Creditor shall be mailed or delivered to the following address, or sent by facsimile to the following number with confirmation of receipt by voice:

Brad Rosenblum, Chief Financial Officer
Re: Life Sciences Accelerator Program
1000 Winter Street, Suite 2900
Waltham, MA 02451
[Insert email address]
[] (phone)
[] (fax)

All communications to Subordinated Creditor shall be mailed or delivered to the following address:

[Insert Contact Information]

All communications to Borrower shall be mailed or delivered to the following address:

Terrence W. Norchi, President and Chief Executive Officer
235 Walnut St., Suite 6
Framingham, MA 01702
[Insert email address]
[] (phone)

14. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement, and the balance of the Agreement shall be interpreted as if such provision were so excluded, and shall be enforceable in accordance with its terms.

15. This Agreement may be executed in two or more counterparts, each of which is an original and all of which together constitute one instrument.

16. Massachusetts law governs this Agreement without giving effect to conflicts of laws principles. Subordinated Creditor and the Senior Creditor submit to the exclusive jurisdiction of the State and Federal courts in the Commonwealth of Massachusetts. SUBORDINATED CREDITOR AND THE SENIOR CREDITOR WAIVE THEIR RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION FROM THIS AGREEMENT.

17. If there is an action to enforce the rights of a party under this Agreement, the party prevailing will be entitled, in addition to other relief, all reasonable costs and expenses, including reasonable attorneys' fees, incurred in the action.

[Signatures on Following Page]

Subordinated Creditor:

By: _____
[insert name]
[insert title]

Senior Creditor:

MASSACHUSETTS LIFE SCIENCES CENTER

By: _____
Bradley Rosenblum
Chief Financial and Administrative Officer

Borrower:

ARCH THERAPEUTICS, INC.

By: _____
Terrence W. Norchi
President, CEO