

**PROSPECTUS SUPPLEMENT NO. 10 DATED MAY 6, 2016
TO
PROSPECTUS DATED JANUARY 15, 2016
(AS SUPPLEMENTED)**

ARCH THERAPEUTICS, INC.

PROSPECTUS

Up to 25,590,599 Shares of Common Stock

This Prospectus Supplement No. 10 supplements the prospectus of Arch Therapeutics, Inc. (“the **“Company”**”, **“we”**”, **“us”**”, or **“our”**”) dated January 15, 2016 (as supplemented to date, the **“Prospectus”**) with the following attached documents which we filed with the Securities and Exchange Commission :

A. Our Current Report on Form 8-K filed with the Securities and Exchange Commission on May 6, 2016

This Prospectus Supplement No. 10 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. 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 May 6, 2016

INDEX TO FILINGS

	<u>Annex</u>
The Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission on May 6, 2016	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): **May 3, 2016**

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 3.02 Unregistered Sales of Equity Securities.

Reference is made to the disclosure set forth in Item 5.02(e)(B) (“Restricted Stock Awards”) of this Current Report on Form 8-K, which disclosure is incorporated by reference into this Item 3.02.

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

(e)

A. Stock Option Awards

On May 3, 2016, the Board of Directors (the “**Board**”) of Arch Therapeutics, Inc. (the “**Company**”) approved the granting of the following stock options to purchase shares of the Company’s Common Stock (the “**Stock Option Awards**”) under the Company’s 2013 Stock Incentive Plan (the “**Plan**”) and in accordance with the Form of Stock Option Agreement adopted in connection with the Plan (the “**Form of Stock Option Agreement**”):

Stock Option Awardee	Grant Date	Expiration Date	Number of Shares of Common Stock	Exercise Price Per Share	Vesting Schedule
Avtar Dhillon	5/3/16	5/2/26	830,000	\$0.39	· 25% of the shares subject to the Stock Option Award vest upon grant. · The remaining 75% of the shares subject to the Stock Option Award vest in equal installments on each of the following 36 monthly anniversaries of the grant date. · In addition, in the event of a Change of Control (as such term is defined in the Plan), all the shares subject to the Stock Option Award will immediately vest.
Terrence W. Norchi	5/3/16	5/2/26	1,250,000	\$0.39	
James R. Sulat	5/3/16	5/2/26	130,000	\$0.39	
Richard Davis	5/3/16	5/2/26	150,000	\$0.39	

The Form of Stock Option Agreement was filed by the Company as Exhibit 10.13 to the Company’s Quarterly Report on Form 10-Q filed with the SEC on August 14, 2013, and is incorporated herein by reference.

B. Restricted Stock Awards

In addition to the Stock Option Awards, the Board also approved the granting of the following restricted stock awards of Common Stock outside the Plan in accordance with the Form of Restricted Stock Agreement (the “**Restricted Stock Awards**”) attached hereto as Exhibit 10.2, which is incorporated herein by reference:

Restricted Stock Awardee	Grant Date	Number of Shares of Common Stock	Vesting Schedule
Avtar Dhillon	5/3/16	737,000	· 100% of the shares subject to the Restricted Stock Award vest fully on the second anniversary of the date of grant. · In addition, in the event of a Change of Control (as such term is defined in the Plan) all the shares subject to the Restricted Stock Award will immediately vest.
Terrence W. Norchi	5/3/16	1,130,000	
James R. Sulat	5/3/16	30,000	
Richard Davis	5/3/16	103,000	

The Restricted Stock Awards were granted in consideration for each Restricted Stock Awardee’s services to the Company. The issuance of the Common Stock subject to the Restricted Stock Awards (the “**Securities**”) has not been registered under the Securities Act of 1933, as amended (the “**Securities Act**”), and the Securities may not be offered or sold in the United States absent registration under or exemption from the Securities Act and any applicable state securities laws. The Securities were issued in reliance upon an exemption from registration afforded by Section 4(a)(2) of the Securities Act based on the following facts: each of the Restricted Stock Awardees is an accredited investor as defined in Rule 501 promulgated under the Securities Act; the Restricted Stock Awardees did not acquire the Securities with a view towards, or for resale in connection with, the public sale or distribution thereof in violation of applicable securities laws; and the Securities will be issued as restricted securities.

Item 9.01 Financial Statements and Exhibit

(d) Exhibits

Exhibit	Description
10.1	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)
10.2	Form of Restricted Stock Award 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: May 6, 2016

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 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)
10.2	Form of Restricted Stock Award Agreement

Award Number:

ARCH THERAPEUTICS, INC.

RESTRICTED STOCK BONUS AWARD AGREEMENT

1. **Issuance of Shares.** Arch Therapeutics, Inc. a Nevada corporation (the “Company”), hereby issues to the Grantee (the “Grantee”) named in the Notice of Restricted Stock Bonus Award (the “Notice”), the Total Number of Shares of Common Stock Awarded set forth in the Notice (the “Shares”), subject to the Notice and this Restricted Stock Bonus Award Agreement (the “Agreement”). All Shares issued hereunder will be deemed issued to the Grantee as fully paid and nonassessable shares, and the Grantee will have the right to vote the Shares at meetings of the Company’s stockholders. The Company shall pay any applicable stock transfer taxes imposed upon the issuance of the Shares to the Grantee hereunder.

2. **Transfer Restrictions.** The unregistered and restricted Shares issued to the Grantee hereunder may not be sold, transferred by gift, pledged, hypothecated, or otherwise transferred or disposed of (collectively, “Transferred”) by the Grantee (i) prior to the date when the Shares become vested pursuant to the Vesting Schedule set forth in the Notice; and (ii) thereafter only if the Grantee shall have delivered to the Company (if requested by the Company) an opinion of counsel to the Grantee, in a form reasonably acceptable to the Company, to the effect that such Shares may be Transferred pursuant to an exemption from registration under the Securities Act of 1933, as amended (the “Securities Act”) or if the Grantee provides the Company with reasonable assurance (which may include customary stockholder representation letters) that such Shares can be Transferred pursuant to Rule 144 promulgated under the Securities Act. Any attempt to transfer Restricted Shares in violation of this Section 2 will be null and void and will be disregarded.

3. **Escrow of Stock.** For purposes of facilitating the enforcement of the provisions of this Agreement, the Grantee agrees, immediately upon receipt of the certificate(s) for the Restricted Shares, to deliver such certificate(s), together with an Assignment Separate from Certificate in the form attached hereto as Exhibit A, executed in blank by the Grantee with respect to each such stock certificate, to the Secretary or Assistant Secretary of the Company, or their designee, to hold in escrow for so long as such Restricted Shares have not vested pursuant to the Vesting Schedule set forth in the Notice, with the authority to take all such actions and to effectuate all such transfers and/or releases as may be necessary or appropriate to accomplish the objectives of this Agreement in accordance with the terms hereof. The Grantee hereby acknowledges that the appointment of the Secretary or Assistant Secretary of the Company (or their designee) as the escrow holder hereunder with the stated authorities is a material inducement to the Company to make this Agreement and that such appointment is coupled with an interest and is accordingly irrevocable. The Grantee agrees that the Restricted Shares may be held electronically in a book entry system maintained by the Company’s transfer agent or other third party and that all the terms and conditions of this Section 3 applicable to certificated Restricted Shares will apply with the same force and effect to such electronic method for holding the Restricted Shares. The Grantee agrees that such escrow holder shall not be liable to any party hereto (or to any other party) for any actions or omissions unless such escrow holder is grossly negligent relative thereto. The escrow holder may rely upon any letter, notice or other document executed by any signature purported to be genuine and may resign at any time. Upon the vesting of Restricted Shares, the escrow holder will, without further order or instruction, transmit to the Grantee the certificate evidencing such Shares; *provided, however*, that no transmittal of certificates evidencing the Shares will occur unless and until the Grantee has satisfied all Tax Withholding Obligations (as defined in Section 5(c) below).

4. Additional Securities and Distributions.

(a) Any securities or cash received (other than a regular cash dividend) as the result of ownership of the Restricted Shares (the “Additional Securities”), including, but not by way of limitation, warrants, options and securities received as a stock dividend or stock split, or as a result of a recapitalization or reorganization or other similar change in the Company’s capital structure, shall be retained in escrow in the same manner and subject to the same conditions and restrictions as the Restricted Shares with respect to which they were issued, including, without limitation, the Vesting Schedule set forth in the Notice. The Grantee shall be entitled to direct the Company to exercise any warrant or option received as Additional Securities upon supplying the funds necessary to do so, in which event the securities so purchased shall constitute Additional Securities, but the Grantee may not direct the Company to sell any such warrant or option. If Additional Securities consist of a convertible security, the Grantee may exercise any conversion right, and any securities so acquired shall constitute Additional Securities. In the event of any change in certificates evidencing the Shares or the Additional Securities by reason of any recapitalization, reorganization or other transaction that results in the creation of Additional Securities, the escrow holder is authorized to deliver to the issuer the certificates evidencing the Shares or the Additional Securities in exchange for the certificates of the replacement securities.

(b) The Company shall disburse to the Grantee all regular cash dividends with respect to the Shares and Additional Securities (whether vested or not), less any applicable withholding obligations.

5. Taxes.

(a) None

(b) Tax Liability. The Grantee is ultimately liable and responsible for all taxes owed by the Grantee in connection with the Award, regardless of any action the Company or any Related Entity takes with respect to any tax withholding obligations that arise in connection with the Award. Neither the Company nor any Related Entity makes any representation or undertaking regarding the treatment of any tax withholding in connection with the grant or vesting of the Award or the subsequent sale of Shares subject to the Award. The Company and its Related Entities do not commit and are under no obligation to structure the Award to reduce or eliminate the Grantee’s tax liability.

(c) Payment of Withholding Taxes. Prior to any event in connection with the Award (e.g., vesting) that the Company determines may result in any tax withholding obligation, whether United States federal, state, local or non-U.S., including any employment tax obligation (the “Tax Withholding Obligation”), the Grantee must arrange for the satisfaction of the minimum amount of such Tax Withholding Obligation in a manner acceptable to the Company.

(i) *By Share Withholding.* The Grantee authorizes the Company to, upon the exercise of its sole discretion, withhold from those Shares issuable to the Grantee the whole number of Shares sufficient to satisfy the minimum applicable Tax Withholding Obligation. The Grantee acknowledges that the withheld Shares may not be sufficient to satisfy the Grantee's minimum Tax Withholding Obligation. Accordingly, the Grantee agrees to pay to the Company or any Related Entity as soon as practicable, including through additional payroll withholding, any amount of the Tax Withholding Obligation that is not satisfied by the withholding of Shares described above.

(ii) *By Sale of Shares.* Unless the Grantee determines to satisfy the Tax Withholding Obligation by some other means in accordance with clause (iii) below, the Grantee's acceptance of this Award constitutes the Grantee's instruction and authorization to the Company and any brokerage firm determined acceptable to the Company for such purpose to sell on the Grantee's behalf, in accordance with the provisions of Rule 144 promulgated under the Securities Act, a whole number of Shares from those Shares issuable to the Grantee as the Company determines to be appropriate to generate cash proceeds sufficient to satisfy the minimum applicable Tax Withholding Obligation. Such Shares will be sold on the day such Tax Withholding Obligation arises (e.g., a vesting date) or as soon thereafter as practicable. The Grantee will be responsible for all broker's fees and other costs of sale, and the Grantee agrees to indemnify and hold the Company harmless from any losses, costs, damages, or expenses relating to any such sale. To the extent the proceeds of such sale exceed the Grantee's minimum Tax Withholding Obligation, the Company agrees to pay such excess in cash to the Grantee. The Grantee acknowledges that the Company or its designee is under no obligation to arrange for such sale at any particular price, and that the proceeds of any such sale may not be sufficient to satisfy the Grantee's minimum Tax Withholding Obligation. Accordingly, the Grantee agrees to pay to the Company or any Related Entity as soon as practicable, including through additional payroll withholding, any amount of the Tax Withholding Obligation that is not satisfied by the sale of Shares described above.

(iii) *By Check, Wire Transfer or Other Means.* At any time not less than five (5) business days (or such fewer number of business days as determined by the Administrator) before any Tax Withholding Obligation arises (e.g., a vesting date), the Grantee may elect to satisfy the Grantee's Tax Withholding Obligation by delivering to the Company an amount that the Company determines is sufficient to satisfy the Tax Withholding Obligation by (x) wire transfer to such account as the Company may direct, (y) delivery of a certified check payable to the Company, or (z) such other means as specified from time to time by the Administrator.

Notwithstanding the foregoing, the Company also may satisfy any Tax Withholding Obligation by offsetting any amounts (including, but not limited to, salary, bonus and severance payments) due to the Grantee by the Company.

6. Stop-Transfer Notices. In order to ensure compliance with the restrictions on transfer set forth in this Agreement or the Notice, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records. The Company may issue a “stop transfer” instruction if the Grantee fails to satisfy any Tax Withholding Obligations.

7. Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Restrictive Legends. The Grantee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE RESTRICTED BY THE TERMS OF THAT CERTAIN RESTRICTED STOCK BONUS AWARD AGREEMENT BETWEEN THE COMPANY AND THE NAMED STOCKHOLDER. THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH SUCH AGREEMENT, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

9. Entire Agreement: Governing Law. The Notice, this Agreement and the CA constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Grantee with respect to the subject matter hereof, and may not be modified adversely to the Grantee’s interest except by means of a writing signed by the Company and the Grantee. These agreements are to be construed in accordance with and governed by the internal laws of the State of Nevada without giving effect to any choice of law rule that would cause the application of the laws of any jurisdiction other than the internal laws of the State of Nevada to the rights and duties of the parties. Should any provision of the Notice or this Agreement be determined to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

10. Construction. The captions used in the Notice and this Agreement are inserted for convenience and shall not be deemed a part of the Award for construction or interpretation. Except when otherwise indicated by the context, the singular shall include the plural and the plural shall include the singular. Use of the term “or” is not intended to be exclusive, unless the context clearly requires otherwise.

11. Administration and Interpretation. Any question or dispute regarding the administration or interpretation of the Notice or this Agreement shall be submitted by the Grantee or by the Company to the Administrator. The resolution of such question or dispute by the Administrator shall be final and binding on all persons.

12. Venue. The parties agree that any suit, action, or proceeding arising out of or relating to the Notice or this Agreement shall be brought in the United States District Court for the District of Massachusetts (or should such court lack jurisdiction to hear such action, suit or proceeding, in a Massachusetts state court in the County of Middlesex) and that the parties shall submit to the jurisdiction of such court. The parties irrevocably waive, to the fullest extent permitted by law, any objection the party may have to the laying of venue for any such suit, action or proceeding brought in such court. If any one or more provisions of this Section 12 shall for any reason be held invalid or unenforceable, it is the specific intent of the parties that such provisions shall be modified to the minimum extent necessary to make it or its application valid and enforceable.

13. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery, upon deposit for delivery by an internationally recognized express mail courier service or upon deposit in the United States mail by certified mail (if the parties are within the United States), with postage and fees prepaid, addressed to the other party at its address as shown in these instruments, or to such other address as such party may designate in writing from time to time to the other party.

END OF AGREEMENT

EXHIBIT A

STOCK ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED, _____ hereby sells, assigns and transfers unto
_____, _____ (_____) shares of the Common Stock of Arch Therapeutics, Inc., a Nevada corporation
(the "Company"), standing in his name on the books of, the Company represented by Certificate No. _____
herewith, and does hereby irrevocably constitute and appoint the Secretary of the Company attorney to transfer the said stock in the
books of the Company with full power of substitution.

DATED: _____

[Please sign this document but do not date it. The date and information of the transferee will be completed if and when the shares are assigned.]