

Arch Therapeutics, Inc.
Form S-1/A
October 16, 2015

As filed with the U.S. Securities and Exchange Commission on October 16, 2015

Registration No. 333-206873

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1

to

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ARCH THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Nevada	3841	46-0524102
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

235 Walnut St., Suite 6

Framingham, MA 01702

(617) 431-2313

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Terrence W. Norchi

President and Chief Executive Officer

235 Walnut St., Suite 6

Framingham, MA 01702

(617) 431-2313

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as possible after the effective date hereof.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. x

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If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

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" in Rule 12b-2 of the Exchange Act.

Large accelerated filer " Accelerated filer "
Non-accelerated filer " (Do not check if a smaller reporting company) Smaller reporting company x

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission acting pursuant to said section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling securityholders named herein may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED October 16, 2015

ARCH THERAPEUTICS, INC.

PROSPECTUS

Up to 28,781,508 Shares of Common Stock

This prospectus relates to the offering and resale by the selling securityholders of Arch Therapeutics, Inc. named herein of up to 28,781,508 shares of common stock, par value \$0.001 per share (“**Common Stock**”). These shares include 14,390,754 shares of issued and outstanding Common Stock currently held by the selling securityholders and 14,390,754 shares of Common Stock currently underlying Series D Warrants held by the selling securityholders, all of which were initially issued and sold in a private placement offering that was concluded on July 2, 2015 (the “**2015 Private Placement Financing**”). The Common Stock issued in the 2015 Private Placement Financing was sold as a part of a unit (“**Unit**”) consisting of a share of our Common Stock and a Series D Warrant at a purchase price of \$0.22 per Unit. The Series D Warrants entitle the holders thereof to purchase shares of Common Stock at an initial exercise price of \$0.25 per share, were exercisable immediately upon issuance and expire five years thereafter.

The selling securityholders may sell the shares of Common Stock to be registered hereby from time to time on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market, in one or more transactions otherwise than on these exchanges or systems or in the over-the-counter market, such as privately negotiated transactions, or using a combination of these methods, and at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. See the disclosure under the heading “**Plan of Distribution**” in this prospectus for more information.

We will not receive any proceeds from the resale of Common Stock by the selling securityholders.

Our Common Stock is traded on the QB tier of the OTC Marketplace (“**OTCQB**”) under the symbol “**ARTH**”. On October 15, 2015, the closing price of our Common Stock was \$0.253 per share.

We originally offered and sold the securities issued in the 2015 Private Placement Financing under an exemption from the registration requirements of the Securities Act of 1933, as amended (the “**Securities Act**”), pursuant to Section 4(a)(2) thereof.

Investing in our Common Stock involves a high degree of risk. Before making any investment in our Common Stock, you should read and carefully consider the risks described in this prospectus under the heading “Risk Factors” beginning on page 12 of this prospectus.

You should rely only on the information contained in this prospectus or any 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.

This prospectus is dated _____, 2015

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About This Prospectus

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security registered under the registration statement of which this prospectus is a part.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “**Where You Can Find More Information.**”

As used in this prospectus, unless the context indicates or otherwise requires, the “**Company**”, “**we**”, “**us**”, “**our**” and “**Arch**” refer to Arch Therapeutics, Inc., a Nevada corporation, and its consolidated subsidiary, and the term “**ABS**” refers to Arch Biosurgery, Inc., a private Massachusetts corporation that, through a reverse merger acquisition completed on June 26, 2013, has become our wholly owned subsidiary.

On May 24, 2013, we effected a forward stock split, by way of a stock dividend, of our issued and outstanding shares of Common Stock at a ratio of 11 shares to each one issued and outstanding share. Unless the context indicates or otherwise requires, all share numbers and share price data included in this prospectus have been adjusted to give effect to that stock split.

Our trademarks include AC5 Surgical Hemostatic Device™, AC5™, Crystal Clear Surgery™, NanoDrape™ and NanoBioBarrier™. All other trademarks, trade names and service marks included in this prospectus are the property of their respective owners.

SUMMARY

This summary does not contain all of the information that should be considered before investing in our Common Stock. Investors should read the entire prospectus carefully, including the more detailed information regarding our business under the heading “OUR BUSINESS” beginning on page 54 of this prospectus, the risks of purchasing our Common Stock discussed in this prospectus under the heading “Risk Factors” beginning on page 12 of this prospectus and our consolidated financial statements and the accompanying notes beginning on page F-1 of this prospectus.

Our Company

We are a life science medical device company in the development stage with limited operations to date. We aim to develop products that make surgery and interventional care faster and safer by using a novel approach that stops bleeding (referenced as “**hemostatic**” or “**hemostasis**”), controls leaking (referenced as “**sealant**” or “**sealing**”), and provides other advantages during surgery and trauma care. Our core technology is based on a self-assembling peptide solution that creates a physical, mechanical barrier, which could be applied to seal organs or wounds that are leaking blood and other fluids. We believe our technology could support an innovative platform of potential products in the field of stasis and barrier applications. Our lead product candidate, the AC5 Surgical Hemostatic Device™ (which we sometimes refer to as “**AC5™**”), is designed to achieve hemostasis in minimally invasive and open surgical procedures, and we hope to develop other hemostatic or sealant product candidates in the future based on our self-assembling peptide technology platform. Our plan and business model is to develop products that apply that core technology to use with human bodily fluids and connective tissues.

AC5 is designed to be a biocompatible synthetic peptide comprising naturally occurring amino acids. When applied to a wound, AC5 intercalates into the interstices of the connective tissue where it self-assembles into a physical, mechanical structure that provides a barrier to leaking substances, such as blood. AC5 is designed for direct application as a liquid, which we believe will make it user-friendly and able to conform to irregular wound geometry. Additionally, AC5 is not sticky or glue-like, which we believe will enhance its utility in the setting of minimally invasive and laparoscopic surgeries. Further, AC5 is transparent, which should make it easier for surgeons or other healthcare providers to maintain a clear field of vision during a surgical procedure and prophylactically stop bleeding as it starts, which we call Crystal Clear Surgery™.

We currently have no products that have obtained marketing approval in any jurisdiction, we have not generated revenues since inception and we do not expect to do so in the foreseeable future due to the early stage nature of our current product candidates. We had net losses for the year ended September 30, 2014 and the nine months ended June 30, 2015 of \$8,142,823 and \$1,850,066, respectively, and we had an accumulated deficit as of June 30, 2015 of \$14,624,760. To date, we have financed our operations primarily through funding received from private placement

offerings, such as the 2015 Private Placement Financing, the 2014 Private Placement Financing (as later defined), the Notes Offering (as later defined), and under the MLSC Loan Agreement (as later defined). We have devoted much of our operations to date to the development of our core technology, including selecting our lead product composition, conducting initial safety and other related tests, generating scale-up, reproducibility and manufacturing and formulation methods, and developing and protecting the intellectual property rights underlying our technology platform.

For more information regarding our business, see the disclosure under the headings “**Management’s Discussion and Analysis of Financial Condition and Results of Operations**” and “**Our Business**” included elsewhere in this prospectus. For a description of certain risks related to our business, see the disclosure under the heading “**Risk Factors**” beginning on page 12 of this prospectus.

2015 Private Placement Financing

Beginning June 22, 2015 and through June 30, 2015, we entered into a series of substantially similar subscription agreements (each a “**Subscription Agreement**”) with twenty accredited investors providing for the issuance and sale by us to such investors, in a private placement, of an aggregate of 14,390,754 Units at a purchase price of \$0.22 per Unit (the “**2015 Private Placement Financing**”). Each Unit consisted of a share of our Common Stock and a Series D Warrant (“**Series D Warrant**”) to purchase a share of Common Stock at an exercise price of \$0.25 per share at any time prior to the fifth anniversary of the issuance date of the Series D Warrant (the shares issuable upon exercise of the Series D Warrants, the “**Series D Warrant Shares**”). The number of shares of Common Stock into which each of the Series D Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the Series D Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In addition, (i) at anytime during the term of the Series D Warrants, we may reduce the then current exercise price to any amount and for any period of time deemed appropriate by our Board of Directors (the “**Board**”); and (ii) certain of the Series D Warrants provide that they shall not be exercisable in the event and to the extent that the exercise thereof would result in the holder of the Series D Warrant or any of its affiliates beneficially owning more than 4.9% of our Common Stock, but such ownership limitation may be waived at the holder’s discretion, *provided that* such waiver will not become effective until the 6th day after delivery of such waiver notice. We did not engage any underwriter or placement agent in connection with the 2015 Private Placement Financing. The aggregate gross proceeds raised by us in the 2015 Private Placement Financing totaled approximately \$3,166,000, and upon the Second Closing (as later defined) on July 2, 2015, the number of shares of our Common Stock outstanding increased by over eighteen percent (18%) from 78,766,487 to 93,157,241.

The Company's obligation to issue and sell the Units, and the corresponding obligation of the investors to purchase such securities were subject to a number of conditions precedent including, but not limited to, the amendment of the Series A Warrants and Series C Warrants that we had previously issued in the 2014 Private Placement Financing to delete certain of the anti-dilution provisions contained therein, and other customary closing conditions. The conditions precedent were satisfied June 30, 2015 (the "**Initial Closing Date**"), and on that date we conducted an initial closing (the "**Initial Closing**") pursuant to which we sold and 19 of the investors (the "**Initial Investors**") purchased 13,936,367 Units at an aggregate purchase price of approximately \$3,066,000. On July 2, 2015, we conducted a second closing (the "**Second Closing**" and together with the Initial Closing, the "**Closings**") pursuant to which we sold and the remaining investor purchased 454,387 Units at an aggregate purchase price of approximately \$100,000.

Our existing stockholders will experience dilution upon any exercise of the Series D Warrants issued in the 2015 Private Placement Financing. Such Series D Warrants are currently exercisable for an aggregate of 14,390,754 shares of our Common Stock which, assuming no adjustments to and the full exercise of the Series D Warrants and no other issuances of our Common Stock would equal approximately 14% of the 108,169,804 shares of Common Stock outstanding as of the date of this prospectus, and approximately 12% of the 122,560,558 shares of Common Stock that would be outstanding after giving effect to the exercise of all such warrants.

On the Initial Closing Date, we entered into a registration rights agreement with the Initial Investors (the "**2015 Registration Rights Agreement**"), pursuant to which we became obligated, subject to certain conditions, to file with the Securities and Exchange Commission (the "**SEC**") within 90 days after the closing of the 2015 Private Placement Financing one or more registration statements to register the shares of Common Stock issued in the Closings and the Series D Warrant Shares for resale under the Securities Act of 1933, as amended (the "**Securities Act**"). The remaining investor became a party to the 2015 Registration Rights Agreement upon the consummation of the Second Closing. As a result, we are registering for resale under this registration statement an aggregate of 28,781,508 shares of Common Stock, representing the 14,390,754 shares issued at the closing of the 2015 Private Placement Financing and the 14,390,754 shares underlying the Series D Warrants.

Pursuant to our filing of this registration statement, we are in compliance with such filing obligation under the 2015 Registration Rights Agreement. Our failure to satisfy certain deadlines with respect to this registration statement, including with respect to the effectiveness hereof within five (5) business days after the SEC notifies us that no review of the registration statement will be made or that the SEC has no further comments on the registration statement, and certain other requirements set forth in the 2015 Registration Rights Agreement may require us to pay monetary penalties to the investors in the 2015 Private Placement Financing and/or their assignees. Because the Series D Warrants are subject to certain adjustments and permit, in certain circumstances, the "cashless" exercise thereof, the number of shares that will actually be issuable upon any exercise thereof may be more or less than the number of shares being offered by this prospectus. In the event of any such adjustment to the number of shares issuable upon exercise of the Series D Warrants, the provisions of the 2015 Registration Rights Agreement would obligate us to register for resale any additional shares of our Common Stock that may then be issuable upon exercise of the Series D Warrants.

Under the 2015 Registration Rights Agreement, subject to exception in certain circumstances, we have agreed to keep this registration statement effective until the earlier of the date on which all shares of Common Stock to be registered hereunder have been sold, and the twelve month anniversary of the date the registration statement of which this prospectus is a part is declared effective by the SEC. If there is not an effective registration statement covering the resale of any of the shares issued in or issuable upon exercise of the Series D Warrants issued in the 2015 Private Placement Financing, then the selling securityholders will be entitled to exercise their Series D Warrants on a “cashless exercise” or “net exercise” basis during the period when the shares issuable upon exercise of such Series D Warrants are not so registered.

Three of the selling securityholders, Anson Investments Master Fund LP (“**Anson**”), Intracoastal Capital, LLC (“**Intracoastal**”) and the Keyes Sulat Revocable Trust (the “**Trust**”), or their respective affiliates, have participated in previous financings that were either conducted by us or our affiliates. In particular, Anson and Equitec Specialists, LLC (“**Equitec**”), an affiliate of Intracoastal, were issued 2,000,000 and 800,000 shares of Common Stock, respectively, and Series A Warrants, Series B Warrants and Series C Warrants (collectively, the “**2014 Warrants**”), each exercisable for 2,000,000 and 800,000 shares, respectively, at the closing of the 2014 Private Placement Financing on February 4, 2014. On March 13, 2015, each of Anson and Equitec were issued a Convertible Note (as defined below) in the aggregate principal amount of \$250,000 upon the closing of the Notes Offering. In May 2015, Equitec assigned the remaining securities it acquired in the 2014 Private Placement Financing and Notes Offering to Intracoastal.

The Trust, in turn, previously purchased a promissory note in the aggregate principal amount of \$75,000 and warrants from our wholly-owned subsidiary, ABS, on June 19, 2013. In contemplation of the Merger (as later defined), the securities purchased by the Trust were amended and restated to provide for (i) the conversion of all amounts owed under the promissory note into an aggregate of 273,277 shares of the Company’s Common Stock upon the closing of the Merger, calculating to approximately one share of the Company’s Common Stock for each \$0.27 outstanding under the promissory note, and (ii) the cancellation of the warrants in full upon the closing of the Merger. Accordingly, upon the closing of the Merger on June 26, 2013, the promissory note was converted into 273,277 shares of our Common Stock and the warrants were cancelled. James R. Sulat, who was appointed as a member of our Board on August 19, 2015, is a co-trustee of the Trust along with his wife. On June 18, 2013, we awarded Mr. Sulat a stock option award to purchase 30,000 shares of Common Stock at an exercise price of \$0.37 per share in consideration for services rendered to us as a consultant, and on August 19, 2015, we awarded Mr. Sulat an additional stock option award to purchase 200,000 shares of Common Stock at an exercise price of \$0.27 per share in connection with his appointment to the Board.

On June 30, 2015, the Initial Closing Date, the Series D Warrants had an exercise price lower than the market value of our Common Stock, which closed at \$0.26 on the OTCQB on such date, resulting in an aggregate discount to the market price of our Common Stock of \$139,364. On July 2, 2015, the date of the Second Closing, Series D Warrants had an exercise price higher than the market value of our Common Stock, which closed at \$0.23 on the OTCQB on such date, and therefore did not have any discount to the market price of our Common Stock as of such date. The tables below indicate the total possible discount to the market price of our Common Stock as of June 30, 2015 for the shares of our Common Stock underlying the Series D Warrants issued upon the Initial Closing, as well as similar information for the Series D Warrants issued upon the Second Closing.

Series D Warrants Issued on June 30, 2015

Market price per share of our Common Stock on June 30, 2015, the Initial Closing Date:	\$0.26
Exercise price per share of the Series D Warrants on the Initial Closing Date:	\$0.25
Total possible shares of Common Stock underlying the Series D Warrants issued on the Initial Closing Date:	13,936,367

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Aggregate market price of all shares of Common Stock underlying the Series D Warrants issued on the Initial Closing Date, based on the market price of our Common Stock on June 30, 2015: \$3,623,455

Aggregate exercise price of all shares of Common Stock underlying the Series D Warrants issued on the Initial Closing Date, based on the exercise price on the Initial Closing Date: \$3,484,092

Total possible discount of the exercise price of the Series D Warrants issued on the Initial Closing Date to the market price of our Common Stock as of June 30, 2015: \$139,364

Series D Warrants Issued on July 2, 2015

Market price per share of our Common Stock on July 2, 2015, the date of the Second Closing:	\$0.23
Exercise price per share of the Series D Warrants on the date of the Second Closing:	\$0.25
Total possible shares of Common Stock underlying the Series D Warrants issued on the date of the Second Closing:	454,387
Aggregate market price of all shares of Common Stock underlying the Series D Warrants issued on the date of the Second Closing, based on the market price of our Common Stock on July 2, 2015:	\$ 104,509
Aggregate exercise price of all shares of Common Stock underlying the Series D Warrants issued on the date of the Second Closing, based on the exercise price on the date of the Second Closing:	\$ 113,597

The net proceeds to us from the 2015 Private Placement Financing, after giving effect to legal and other expenses incurred through the date of this prospectus, were approximately \$3.0 million. The table below describes in more detail these costs associated with the 2015 Private Placement Financing through the date of this prospectus:

Gross proceeds of the 2015 Private Placement Financing:	\$ 3,166,000 (1)
Legal and other expenses incurred in connection with the 2015 Private Placement Financing:	\$ 150,000 (2)
Resulting net proceeds to the Company:	\$ 3,016,000 (3)
Total possible profit to be realized by the selling securityholders and/or their assignees as a result of any exercise discounts underlying the Series D Warrants:	\$ 139,364 (4)

Does not include potential gross proceeds payable to us upon exercise of the Series D Warrants issued in the 2015 Private Placement Financing, which would equal approximately \$3,597,689 if all of the Series D Warrants were exercised on a cash basis on the date of this prospectus.

(2) This amount represents our legal, accounting, registration and other fees and expenses associated with the 2015 Private Placement Financing (collectively, “**Transaction Expenses**”), which were estimated to total \$150,000. This amount does not include additional payments that we may be required to make under certain circumstances but that are not currently determinable, including the following: (a) potential partial damages for failure to register and keep registered for the period specified in the 2015 Registration Rights Agreement the Common Stock issued in the 2015 Private Placement Financing or issuable upon exercise of the Series D Warrants (in a cash amount equal

to 1.5% of the price paid to us by each investor in the 2015 Private Placement Financing on the date of and on each 30-day anniversary of such failure until the cure thereof, with no quantitative cap to the aggregate amount of such); and (b) payments in respect of claims for which we provide indemnification in the 2015 Registration Rights Agreement. Although we intend to comply with the requirements of the Subscription Agreements and the 2015 Registration Rights Agreement and do not currently expect to make any such payments, it is possible that such payments may be required.

- (3) Calculated by subtracting Transaction Expenses from the gross proceeds to us from the 2015 Private Placement Financing.
- (4) Calculated by adding the total possible discount of the exercise prices of the Series D Warrants to the market price of our Common Stock as of June 30, 2015, as reflected in the tables set forth above.

Notes Offering

Beginning March 11, 2015 and through March 13, 2015, we entered into a series of substantially similar subscription agreements (each a “**Convertible Notes Subscription Agreement**”) with each of Anson, Equitec and Capital Ventures International (collectively, the “**Convertible Notes Investors**”) pursuant to which we issued unsecured 2016 8% Convertible Notes (the “**Convertible Notes**”, and such transaction, the “**Notes Offering**”) to the Convertible Notes Investors in the aggregate principal amount of \$750,000. On the Closing of the Notes Offering on March 13, 2015, each Convertible Notes Investor was issued a Convertible Note in the principal amount of \$250,000. As noted above, Anson and Intracoastal, or their respective affiliates, also purchased Units in the 2015 Private Placement Financing. We did not engage any underwriter or placement agent in connection with the Notes Offering.

On September 8, 2015, we, along with the current holders of the Convertible Notes, entered into a series of substantially similar subordination agreements with the Massachusetts Life Sciences Center (“**MLSC**” and such agreements, the “**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 MLSC Loan Agreement. Under the terms of the 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.

Subject to the terms and conditions of the Subordination Agreements, the Convertible Notes issued in the Notes Offering become due and payable on March 13, 2016 (the “**Stated Maturity Date**”) and may not be prepaid. The Convertible Notes bear interest on the unpaid principal balance 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 until either (a) converted into shares of our Common Stock; or (b) the outstanding principal and accrued interest on the Convertible Notes is paid in full by us. Interest on the Convertible Notes becomes due and payable upon their conversion or the Stated Maturity Date and may become due and payable upon the occurrence of an event of default under the Convertible Notes. In the event that the Stated Maturity Date occurs and repayment of the indebtedness accrued under the Convertible Notes is not permitted under the Subordination Agreements, (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 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 Convertible Notes contain customary events of default, which include, among other things, (i) our failure to pay other indebtedness of \$100,000 or more within the specified cure period for such breach; (ii) the acceleration of the stated maturity of such indebtedness; (iii) our insolvency; and (iv) the receipt of final, non-appealable judgments in the aggregate amount of \$100,000 or more.

At any time prior to the Stated Maturity Date, the holders of the Convertible Notes have the right to convert some or all of such Convertible Notes into the number of shares of our 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 (the shares of Common Stock issuable upon such conversion, the “**Conversion Shares**”). The initial conversion price is \$0.20 per share, and it may be (A) reduced to any amount and for any period of time deemed appropriate by our Board, or (B) reduced or increased proportionately as a result of stock splits, stock dividends, recapitalizations, reorganizations, and similar transactions. A holder shall not have the right to convert any portion of a Convertible Note, if after giving effect to such conversion, the holder, together with its affiliates collectively, would beneficially own more than 4.99% or 9.99% (at the holder’s discretion) of the shares of Common Stock outstanding immediately after giving effect to such conversion.

2014 Private Placement Financing

On January 30, 2014, we entered into a securities purchase agreement (the “**Securities Purchase Agreement**”) with nine accredited investors (which included Anson and Equitec) providing for our issuance and sale to such investors, in a private placement, of an aggregate of 11,400,000 shares of our Common Stock at a purchase price of \$0.25 per share and 2014 Warrants, for aggregate gross proceeds to us of \$2.85 million (the “**2014 Private Placement Financing**”). The 2014 Private Placement Financing closed on February 4, 2014.

Upon the closing of the 2014 Private Placement Financing, we issued to each investor therein a Series A Warrant, a Series B Warrant and a Series C Warrant, each to purchase up to a number of shares of our Common Stock equal to 100% of the shares of Common Stock purchased by such investor in the 2014 Private Placement Financing. The Series A Warrants had an initial exercise price of \$0.30 per share, were exercisable immediately upon their issuance and have a term of exercise equal to five years after their issuance date. The Series B Warrants had an initial exercise price of \$0.35 per share, were exercisable immediately upon their issuance and had a term of exercise equal to the shorter of 12 months after their issuance date and six months after the first date on which the resale of all Registrable Securities (as defined in the Securities Purchase Agreement) is covered by one or more effective registration statements. The Series B Warrants expired on January 3, 2015. The Series C Warrants had an initial exercise price of \$0.40 per share, were exercisable immediately upon their issuance and had an initial term of exercise equal to the shorter of 18 months after their issuance date and nine months after the first date on which the resale of all Registrable Securities (as defined in the Securities Purchase Agreement) is covered by one or more effective registration statements. As described below, the term of the Series C Warrants has been extended to July 2, 2016. The number of shares of our Common Stock into which each of the 2014 Warrants is exercisable and the exercise price therefor were subject to adjustment as set forth in the 2014 Warrants, including, without limitation, adjustments in the event of certain subsequent issuances and sales of shares of our Common Stock (or securities convertible or exercisable into shares of our Common Stock) at a price per share lower than the then-effective exercise price of the 2014 Warrants, in which case the per share exercise price of the 2014 Warrants would be adjusted to equal such lower price per share and the number of shares issuable upon exercise of the 2014 Warrants would be adjusted accordingly so that the aggregate exercise price upon full exercise of the 2014 Warrants immediately before and immediately after such per share exercise price adjustment were equal (the “**Anti-Dilution Provisions**”), as well as customary adjustments in the event of stock dividends and splits, subsequent rights offerings and pro rata distributions to our Common Stockholders. As described below, the outstanding 2014 Warrants were amended on June 22, 2015 to remove the Anti-Dilution Provisions. The 2014 Warrants also provide that they shall not be exercisable in the event and to the extent that the exercise thereof would result in the holder of the 2014 Warrant or any of its affiliates beneficially owning more than 4.9% of our Common Stock.

On December 1, 2014, we entered into an agreement with Cranshire Capital Master Fund, Ltd. (“**Cranshire**”) to amend certain provisions of the 2014 Warrants (the “**December 2014 Amendment**”). Under the terms of the December 2014 Amendment, the 2014 Warrants were amended to (i) reduce the exercise price of the Series B Warrants from \$0.35 to \$0.20; (ii) reduce the exercise price of the Series C Warrants from \$0.40 to \$0.20; and (iii) clarify that each series of 2014 Warrants may be amended without having to amend all three series of 2014 Warrants. The number of shares of our Common Stock which could be purchased upon exercise of each 2014 Warrant remained unchanged following the December 2014 Amendment.

As noted above, between March 11, 2015 and through March 13, 2015, we entered into substantially similar Convertible Notes Subscription Agreements with each of the Convertible Notes Investors pursuant to which we issued Convertible Notes to the Convertible Notes Investors in the aggregate principal amount of \$750,000. Because the conversion price of the Convertible Notes on the date the Notes Offering closed (\$0.20 per share) was below the then current exercise price of the Series A Warrants, the issuance of the Convertible Notes triggered the anti-dilution provisions of the Series A Warrants and, as a result, the exercise price of the Series A Warrants was reduced to \$0.20 per share and the aggregate number of shares issuable under the Series A Warrants increased by 5,700,000 shares (or fifty-percent (50%)) from 11,400,000 shares to 17,100,000 shares, in each case effective as of March 13, 2015.

On March 13, 2015 and May 30, 2015, we also entered into amendment agreements with Cranshire to extend the expiration date of the Series C Warrants to 5:00 p.m., New York time, on June 2, 2015, and 5:00 p.m., New York time, on July 2, 2015, respectively. On June 22, 2015, we entered into an additional amendment agreement with Cranshire pursuant to which to the Anti-Dilution Provisions contained in the Series A Warrants and Series C Warrants were removed in consideration for (a) further extending the expiration date of the Series C Warrants to 5:00 p.m., New York time, on July 2, 2016; and (b) agreeing to issue the holders of the Series A Warrants and Series C Warrants up to an additional 570,000 shares of Common Stock, subject to the delivery by each such holder of an investor certificate (such shares of Common Stock, the “**Inducement Shares**”). As of the date of this prospectus, all 570,000 Inducement Shares have been issued.

Also upon the closing of the 2014 Private Placement Financing, we entered into a registration rights agreement (the “**2014 Registration Rights Agreement**”) with the investors in such financing pursuant to which we became obligated to file with the SEC one or more registration statements to register for resale under the Securities Act the shares of Common Stock issued in and underlying the 2014 Warrants issued in the 2014 Private Placement Financing. As a result, we initially registered for resale under a registration statement on Form S-1 (File Number 333-194745, and such registration statement, the “**2014 Registration Statement**”) an aggregate of 45,600,000 shares of Common Stock, representing the 11,400,000 shares issued at the closing of the 2014 Private Placement Financing and the 34,200,000 shares underlying the 2014 Warrants upon the closing of the 2014 Private Placement Financing. Our failure to satisfy certain other deadlines with respect to the 2014 Registration Statement and certain other requirements set forth in the 2014 Registration Rights Agreement may require us to pay monetary penalties to the investors in the 2014 Private Placement Financing. Additionally, we may be required in the future to amend the 2014 Registration Statement or to file a new registration statement in order to register additional shares of our Common Stock for resale by the investors in the 2014 Private Placement Financing to account for adjustments, if any, to the number of shares underlying the 2014 Warrants including, but not limited to, the additional 5,700,000 shares that became exercisable under the Series

A Warrants as a result of the Notes Offering. Under the 2014 Registration Rights Agreement, subject to exception in certain circumstances, we have agreed to keep the 2014 Registration Statement effective until the earlier of the date on which all shares of Common Stock to be registered thereunder have been sold or may be sold without restriction pursuant to Rule 144 promulgated under the Securities Act (“**Rule 144**”). If there is not, at any time during the period required by the 2014 Registration Rights Agreement, an effective registration statement covering the resale of any of the shares issued in or issuable upon exercise of the 2014 Warrants issued in the 2014 Private Placement Financing, then the investors in the 2014 Private Placement Financing or their assignees (collectively, the “**2014 Investors**”) (i) will have “piggyback” registration rights with respect to any such shares that are not eligible for resale pursuant to Rule 144 in connection with any other registration statement we determine to file that would permit the inclusion of those shares; and (ii) will be entitled to exercise their 2014 Warrants on a “cashless exercise” or “net exercise” basis during the period when the shares issuable upon exercise of such 2014 Warrants are not so registered.

We did not engage any underwriter or placement agent in connection with the 2014 Private Placement Financing. We also did not make any payments, in cash or equity, to any of the selling securityholders in connection with the 2014 Private Placement Financing, except that we have reimbursed, or have agreed to reimburse, Cranshire, one of the investors in the 2014 Private Placement Financing, an aggregate cash amount of up to \$35,000 for costs and expenses incurred by it or its affiliates in connection with the transactions contemplated by the 2014 Private Placement Financing and the registration of the securities issued in the 2014 Private Placement Financing. After deducting for the expense reimbursement to Cranshire, the net proceeds to us from the 2014 Private Placement Financing on the date it closed were approximately \$2.815 million.

Corporate Information

We were incorporated under the laws of State of Nevada on September 16, 2009 as Almah, Inc. On May 10, 2013, we entered into an Agreement and Plan of Merger (the “**Merger Agreement**”) with ABS and Arch Acquisition Corporation, our wholly owned subsidiary formed for the purpose of the transaction, pursuant to which Arch Acquisition Corporation merged with and into ABS and ABS thereby became our wholly owned subsidiary (the “**Merger**”). The Merger closed on June 26, 2013. In contemplation of the Merger, we changed our name from Almah, Inc. to Arch Therapeutics, Inc. Our principal executive offices are located at 235 Walnut St., Suite 6, Framingham, Massachusetts 01702. The telephone number of our principal executive offices is (617) 431-2313. Our website address is <http://www.archtherapeutics.com>. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this document.

ABS was incorporated under the laws of the Commonwealth of Massachusetts on March 6, 2006 as Clear Nano Solutions, Inc. On April 7, 2008, ABS changed its name from Clear Nano Solutions, Inc. to Arch Therapeutics, Inc., and on June 26, 2013, ABS changed its name from Arch Therapeutics, Inc. to Arch Biosurgery, Inc.

Prior to the completion of the Merger, we were a “shell company” under applicable rules of the SEC, and had no or nominal assets or operations. Upon the closing of the Merger, we abandoned our prior business plan and began pursuing, as our sole business, our current business as a life science medical device company.

The Offering

This prospectus relates to the resale from time to time by the selling securityholders identified in this prospectus of up to 28,781,508 shares of our Common Stock issued or underlying the Series D Warrants issued in the 2015 Private Placement Financing. None of the shares to be registered hereby are being offered for sale by us.

Common stock outstanding prior to offering 108,169,804 (1)

Common stock offered by the selling securityholders 28,781,508 (2)

Common stock to be outstanding after the offering 122,560,558 (3)

Use of proceeds We will not receive any proceeds from the sale of Common Stock offered by the selling securityholders under this prospectus.

OTCQB symbol "ARTH"

Risk Factors See "Risk Factors" beginning on page 12 and other information in this prospectus for a discussion of the factors you should consider before you decide to invest in our Common Stock and warrants.

(1) As of October 15, 2015, includes an aggregate of 14,390,754 shares of our Common Stock issued to the selling securityholders in connection with the Closings conducted under the 2015 Private Placement Financing. Includes 19,307,272 shares of Common Stock held by our affiliates.

(2) Consists of: (a) 14,390,754 shares of Common Stock that were issued in connection with the Closings conducted under the 2015 Private Placement Financing; and (b) 14,390,754 shares of Common Stock issuable upon exercise of the Series D Warrants determined as if the Series D Warrants were exercised in full (without regard to any limitations on exercise contained therein).

(3) Assumes (a) no further adjustment to the number of shares underlying the Series D Warrants; and (b) the full exercise of the Series D Warrants held by the selling securityholders as of the date of this prospectus, which would result in the issuance of an aggregate of 14,390,754 shares of Common Stock. Excludes (i) 15,120,708 shares of Common Stock that are reserved for future issuance under our 2013 Stock Incentive Plan (the "2013 Plan"), of which 10,776,504 shares are subject to outstanding option awards granted under the 2013 Plan at exercise prices ranging from \$0.17 to \$0.40 per share and with a weighted average exercise price of \$0.30 per share; (ii) 145,985 shares of Common Stock issuable upon the exercise of outstanding warrants issued in connection with the MLSC

Loan, with an exercise price of \$0.274 per share (the “**MLSC Warrant**”), none of which are being registered pursuant to the registration statement of which this prospectus forms a part; (iii) 2,516,766 shares of Common Stock issuable upon the conversion of the Convertible Notes (assuming, in each case, that the remaining principal outstanding on the Convertible Notes and the accrued interest thereunder is converted into shares of our Common Stock on March 13, 2016, the Stated Maturity Date), none of which are being registered pursuant to the registration statement of which this prospectus forms a part; (iv) 3,400,000 shares of Common Stock issuable upon the exercise of the Series C Warrants, none of which are being registered pursuant to the registration statement of which this prospectus forms a part; and (v) 9,350,000 shares of Common Stock issuable upon the exercise of the Series A Warrants, none of which are being registered pursuant to the registration statement of which this prospectus forms a part.

RISK FACTORS

Investment in our Common Stock involves a high degree of risk. You should carefully consider the following risk factors before making an investment decision. If any of the following risks and uncertainties actually occurs, our business, financial condition, and results of operations could be negatively impacted and you could lose all or part of your investment.

Risks Related to our Business

There is substantial doubt about our ability to continue as a going concern.

We are a development stage company with no commercial products. Our primary product candidate is in the process of being developed, and will require significant additional clinical development and investment before it could potentially be commercialized. As a result, we have not generated any revenue from operations since inception, and we have incurred substantial net losses to date. Moreover, our cash position is vastly inadequate to support our business plans and substantial additional funding will be needed in order to pursue those plans, which include research and development of our primary product candidate, seeking regulatory approval for that product candidate, and pursuing its commercialization in the U.S., Europe and other markets. Those circumstances raise substantial doubt about our ability to continue as a going concern. In particular and as discussed in greater detail below under the risk factor entitled “***We will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail,***” we believe that our current cash and cash equivalents on hand will only be sufficient to meet our anticipated cash requirements through May 2016.

We have incurred significant losses since inception. We expect to continue to incur losses for the foreseeable future, and we may never generate revenue or achieve or maintain profitability.

As noted above under the risk factor entitled “***There is substantial doubt about our ability to continue as a going concern,***” we are a development stage company with no commercial products. Consequently, we have incurred losses in each year since our inception and we expect that losses will continue to be incurred in the foreseeable future in the operation of our business. To date, we have financed our operations entirely through equity and debt investments by founders, other investors and third parties, and we expect to continue to rely on these sources of funding, to the extent available in the foreseeable future. Losses from operations have resulted principally from costs incurred in research and development programs and from general and administrative expenses, including significant costs associated with establishing and maintaining intellectual property rights, significant legal and accounting costs incurred in connection with both the closing of the Merger and complying with public company reporting and control obligations, and personnel expenses. We have devoted substantially all of our time, money and efforts to date to the advancement of our technology and raising capital to support our business, and expect to continue to devote significant time, money and efforts to such activities going forward.

We expect to continue to incur significant expenses and we anticipate that those expenses and losses may increase in the foreseeable future as we seek to:

develop our principal product candidate, AC5, including further development of the product's composition and conducting preclinical biocompatibility studies;

- raise capital needed to fund our operations;
- build and enhance investor relations and corporate communications capabilities;
- conduct clinical trials relating to AC5 and any other product candidate we seek to develop;
- attempt to gain regulatory approvals for any product candidate that successfully completes clinical trials;

establish relationships with contract manufacturing partners, and invest in product and process development through such partners;

- maintain, expand and protect our intellectual property portfolio;
- advance additional candidates through our research and development pipeline;
- seek to commercialize selected product candidates for which we may obtain regulatory approval; and

hire additional regulatory, clinical, quality control, scientific, financial, and management, consultants and advisors.

To become and remain profitable, we must succeed in developing and eventually commercializing product candidates with significant market potential. This will require us to be successful in a number of challenging activities, including successfully completing preclinical testing and clinical trials of product candidates, obtaining regulatory approval for our product candidates and manufacturing, marketing and selling any products for which we may obtain regulatory approval. We are only in the preliminary stages of many of those activities. We may never succeed in those activities and may never generate operating revenues or achieve profitability. Even if we do generate operating revenues sufficient to achieve profitability, we may not be able to sustain or increase profitability. Our failure to generate operating revenues or become and remain profitable would impair our ability to raise capital, expand our business or continue our operations, all of which would depress the price of our Common Stock. A further decline or lack of increase in the prices of our Common Stock could cause our stockholders to lose all or a part of their investment in the Company.

We will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail.

Based on our current operating expenses and working capital requirements, we believe that our current cash and cash equivalents on hand will only be sufficient to meet our anticipated cash requirements through May 2016. In addition to the funds raised from our previous equity and convertible debt financings and borrowings under the Life Sciences Accelerator Funding Agreement (the “**MLSC Loan Agreement**”) that we entered into with MLSC, we will need to obtain additional financing on or prior to May 2016 to continue operations and fund our planned future operations, including the continuation of our ongoing research and development efforts, the licensing or acquisition of new assets, and researching and developing any potential patents, the related compounds and any further intellectual property that we may acquire. In addition, our plans may change and/or we may use our capital resources more rapidly than we currently anticipate. We presently expect that our expenses will increase in connection with our ongoing activities, particularly as we commence preclinical and clinical development for our lead product candidate, AC5. In particular, we currently estimate that we will require up to \$10,000,000 to \$14,000,000 and potentially more in additional capital to obtain regulatory approval of AC5 in the U.S. and Europe. Our future capital requirements will depend on many factors, including:

- the scope, progress and results of our research and preclinical development activities;
- the scope, progress and results of our research and development collaborations;
- the extent of potential direct or indirect grant funding for our research and development activities;

the scope, progress, results, costs, timing and outcomes of any regulatory process and clinical trials conducted for any of our product candidates;

the timing of entering into, and the terms of, any collaboration agreements with third parties relating to any of our product candidates;

- the timing of and the costs involved in obtaining regulatory approvals for our product candidates;

the costs of operating, expanding and enhancing our operations to support our clinical activities and, if our product candidates are approved, commercialization activities;

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the costs of maintaining, expanding and protecting our intellectual property portfolio, including potential litigation costs and liabilities;

- the costs associated with maintaining and expanding our product pipeline;
- the costs associated with expanding our geographic focus;

operating revenues, if any, received from sales of our product candidates, if any are approved by the U.S. Food and Drug Administration (“FDA”) or other applicable regulatory agencies;

the cost associated with being a public company, including obligations to regulatory agencies, and increased investor relations and corporate communications expenses; and

the costs of additional general and administrative personnel, including accounting and finance, legal and human resources employees.

We intend to obtain additional financing for our business through public or private securities offerings, the incurrence of additional indebtedness, or some combination of those sources. We have sought funding through collaborative arrangements, such as the Project Agreement that we entered into with the National University of Ireland Galway (“NUIG”) on May 28, 2015, and we may continue to seek funding through additional collaborative arrangements with strategic partners if we determine them to be necessary or appropriate, although these arrangements could require us to relinquish rights to our technology or product candidates and could result in our receipt of only a portion of any revenues associated with the partnered product. We cannot provide any assurance that additional financing from these sources will be available on favorable terms, if at all. In addition, we are bound by certain contractual terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term, including restrictions in the MLSC Loan Agreement on our ability to incur certain types of additional indebtedness. These restrictions and provisions could make it more challenging for us to raise capital through the incurrence of additional debt or through future equity issuances. Further, if we do raise capital through the sale of equity, or securities convertible into equity, the ownership of our then existing stockholders would be diluted, which dilution could be significant depending on the price at which we may be able to sell our securities. Also, if we raise additional capital through the incurrence of indebtedness, we may become subject to additional covenants restricting our business activities, and the holders of debt instruments may have rights and privileges senior to those of our equity investors. Finally, servicing the interest and principal repayment obligations under our debt facilities and the Convertible Notes that we issued in the Notes Offering could divert funds that would otherwise be available to support research and development, clinical or commercialization activities.

If we are unable to obtain adequate financing on a timely basis or on acceptable terms in the future, we would likely be required to delay, reduce or eliminate one or more of our product development activities, which could cause our business to fail.

Our current and any future debt facilities or instruments may require us to use our limited capital to repay amounts owed and may impose limitations on our operations, which could negatively affect our business plans.

On the Closing of the Notes Offering on March 13, 2015, we issued to each Convertible Notes Investor a Convertible Note in the principal amount of \$250,000. Unless converted on or prior to March 13, 2016 into shares of our Common Stock, we will be obligated to repay the \$750,000 in principal borrowed under and up to an aggregate of \$60,000 in interest incurred in connection with the Convertible Notes on that date, which we may not have or be able to obtain; *provided, however*, that in the event that the repayment of the indebtedness accrued under the Convertible Notes is not permitted under the Subordination Agreements, (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 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.

On September 30, 2013, we entered into the MLSC Loan Agreement with MLSC pursuant to which MLSC has provided us an unsecured subordinated loan in principal amount of \$1,000,000 (such loan, the "**MLSC Loan**"). The MLSC Loan bears interest at a rate of 10% per annum, and will become fully due and payable on the earlier of (i) September 30, 2018; (ii) the occurrence of an event of default under the MLSC Loan Agreement; or (iii) the completion of a sale of substantially all of our assets, a change-of-control transaction or one or more financing transactions in which we receive from third parties other than our then existing shareholders net proceeds of \$5,000,000 or more in a 12-month period. We will need substantial amounts of cash in order to repay the principal and interest owed under MLSC Loan, as it becomes due, which we may not have or be able to obtain. Any failure to make payments as required under the MLSC Loan Agreement would constitute an event of default, and could result in, among other things, MLSC's acceleration of all amounts due thereunder.

Further, the MLSC Loan Agreement restricts our use of the proceeds of the MLSC Loan to funding working capital requirements and/or the purchase of capital assets in the life sciences field, and we are expressly prohibited from using any such proceeds for any severance payment, investment in certain securities or payment for goods or services to a related party of the Company. Additionally, the MLSC Loan Agreement provides that, for so long as any of the MLSC Loan remains outstanding, our headquarters and at least a majority of our employees must be located in Massachusetts and we must not take certain actions without obtaining MLSC's prior consent, including without limitation paying dividends on our capital stock, redeeming any of our outstanding securities, and completing a sale of substantially all of our assets or a change-of-control transaction. Further, our failure to remain a "certified life sciences company" under the Massachusetts General Law would constitute an event of default under the MLSC Loan Agreement. Our ability to pursue our business plans during the term of the MLSC Loan may be severely limited as a result of those restrictions, which could cause our operations and financial condition to suffer.

In addition, the MLSC Loan Agreement restricts our ability, without the prior written consent of MLSC, to incur certain types and amounts of additional indebtedness, including indebtedness senior or, in certain circumstances, equal to the MLSC Loan and any indebtedness to any of our stockholders or employees that is subject to a security interest and not expressly subordinated to the MLSC Loan. Our ability to finance our operations could be limited if, while the MLSC Loan is outstanding, the only source of capital available to us is prohibited by the restrictions set forth in the MLSC Loan Agreement, in which case we may be forced to curtail or eliminate some or all of our operations.

Our short operating history may hinder our ability to successfully meet our objectives.

We are a development stage company subject to the risks, uncertainties and difficulties frequently encountered by early-stage companies in evolving markets. Our operations to date have been primarily limited to organizing and staffing, developing and securing our technology and undertaking or funding preclinical studies of our lead product candidate. We have not demonstrated our ability to successfully complete large-scale, pivotal clinical trials, obtain regulatory approvals, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization.

Because of our limited operating history, we have limited insight into trends that may emerge and affect our business, and errors may be made in developing an approach to address those trends and the other challenges faced by development stage companies. Failure to adequately respond to such trends and challenges could cause our business, results of operations and financial condition to suffer or fail. Further, our limited operating history may make it difficult for our stockholders to make any predictions about our likelihood of future success or viability.

If we are not able to attract and retain qualified management and scientific personnel, we may fail to develop our technologies and product candidates.

Our future success depends to a significant degree on the skills, experience and efforts of the principal members of our scientific and management personnel. These members include Terrence Norchi, MD, our President and Chief Executive Officer. The loss of Dr. Norchi or any of our other key personnel could harm our business and might significantly delay or prevent the achievement of research, development or business objectives. Further, our operation as a public company will require that we attract additional personnel to support the establishment of appropriate financial reporting and internal controls systems. Competition for personnel is intense. We may not be able to attract, retain and/or successfully integrate qualified scientific, financial and other management personnel, which could materially harm our business.

If we fail to properly manage any growth we may experience, our business could be adversely affected.

We anticipate increasing the scale of our operations as we seek to develop our product candidates, including hiring and training additional personnel and establishing appropriate systems for a company with larger operations. The management of any growth we may experience will depend, among other things, upon our ability to develop and improve our operational, financial and management controls, reporting systems and procedures. If we are unable to manage any growth effectively, our operations and financial condition could be adversely affected.

We have identified material weaknesses in our internal control over financial reporting, which could, if not remediated, result in material misstatements in our financial results.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended (the “Exchange

Act”). As disclosed in Item 9A of Part II of our Annual Report filed December 12, 2014 and in Item 4 of Part I of our Quarterly Reports on Form 10-Q that we filed on February 9, 2015, May 7, 2015 and August 7, 2015, management has identified material weaknesses in our disclosure controls and procedures and our internal control over financial reporting as of September 30, 2014. A material weakness in internal control over financial reporting is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our consolidated financial statements will not be prevented or detected on a timely basis. As a result of these material weaknesses, our management concluded in our latest annual assessment that our internal control over financial reporting was not effective as of September 30, 2014, based on criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control—Integrated Framework.

During the quarter ended September 30, 2014, we took steps to remediate certain material weaknesses we have identified in our internal control over financial reporting. On July 7, 2014, we hired a new Chief Financial Officer who serves on a full-time basis. He has, working with the CEO and the Board of Directors, implemented increased segregation of responsibilities, improved policies and procedures relating to purchases of materials and supplies, and developed increased checks and balances as they relate to financial reporting and control policies and procedures. If our remedial measures are insufficient to address the material weaknesses we have identified, or if additional material weaknesses or significant deficiencies in our internal control are discovered or occur in the future, there may be an increased likelihood that our consolidated financial statements contain material misstatements. A restatement of our financial results could result in substantial costs to us for accounting and legal fees and could lead to litigation against us. In addition, even if we are successful in strengthening our controls and procedures, those controls and procedures may not be adequate to prevent or identify irregularities or errors or to facilitate the fair presentation of our consolidated financial statements. If we fail to achieve and maintain the adequacy of our internal controls in accordance with applicable standards, we would be unable to conclude that we have effective internal controls over financial reporting. If we cannot produce reliable financial reports, our business and financial condition could be harmed, investors could lose confidence in our reported financial information, and the market price of our stock could decline significantly. Moreover, our reputation with lenders, investors, securities analysts and others may be adversely affected.

We rely significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm our ability to operate our business effectively.

We maintain sensitive data pertaining to our Company on our computer networks, including information about our research and development activities, our intellectual property and other proprietary business information. Our internal computer systems and those of third parties with which we contract may be vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures, despite the implementation of security measures. System failures, accidents or security breaches could cause interruptions to our operations, including material disruption of our research and development activities, result in significant data losses or theft of our intellectual property or proprietary business information, and could require substantial expenditures to remedy. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications or inappropriate disclosure of confidential or proprietary information, we could incur liability and our research and development programs could be delayed, any of which would harm our business and operations.

Risks Related to the Development and Commercialization of our Product Candidates

Our current business plan is dependent on the success of one product candidate.

Our business is currently focused almost entirely on the development and commercialization of one product candidate, AC5. Our reliance on one primary product candidate means that, if we are not able to obtain regulatory approvals and market acceptance of that product, our chances for success will be significantly reduced. We are also less likely to withstand competitive pressures if any of our competitors develops and obtains regulatory approval or certification for a similar product faster than we can or that is otherwise more attractive to the market than AC5. Our current dependence on one product candidate increases the risk that our business will fail if our development efforts for that product candidate experience delays or other obstacles or are otherwise not successful.

The Chemistry, Manufacturing and Control (“CMC”) process may be challenging.

Because of the complexity of our lead product candidate, the CMC process, including product scale-up activities, may be difficult to complete successfully within the parameters required by the FDA or its foreign counterparts. Peptide formulation optimization is particularly challenging, and any delays could negatively impact our anticipated clinical trial and subsequent commercialization timeline. Furthermore, we have, and the third parties with whom we may establish relationships may also have, limited experience with attempting to commercialize a self-assembling peptide as a medical device, which increases the risks associated with completing the CMC process successfully, on time, or

within the projected budget. Failure to complete the CMC process successfully would impact our ability to start a clinical trial and could severely limit the long-term viability of our business.

Our principal product candidate is inherently risky because it is based on novel technologies.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of AC5 creates significant challenges with respect to product development and optimization, engineering, manufacturing, scale-up, quality systems, pre-clinical *in vitro* and *in vivo* testing, government regulation and approval, third-party reimbursement and market acceptance. Our failure to overcome any one of those challenges could harm our operations, ability to commence and/or complete a clinical trial, and overall chances for success.

The manufacturing, production, and sterilization methods that we intend to be utilized are detailed and complex and are a difficult process to manage.

We intend to utilize third party manufacturers to manufacture and sterilize our products. We believe that our proposed manufacturing methods make our choice of manufacturer and sterilizer critical, as they must possess sufficient expertise in synthetic organic chemistry and device manufacturing. If such manufacturers are unable to properly manufacture to product specifications or sterilize our products adequately, that could severely limit our ability to market our products.

Compliance with governmental regulations regarding the treatment of animals used in research could increase our operating costs, which would adversely affect the commercialization of our technology.

The Animal Welfare Act (“AWA”) is the federal law that covers the treatment of certain animals used in research. Currently, the AWA imposes a wide variety of specific regulations that govern the humane handling, care, treatment and transportation of certain animals by producers and users of research animals, most notably relating to personnel, facilities, sanitation, cage size, and feeding, watering and shipping conditions. Third parties with whom we contract are subject to registration, inspections and reporting requirements under the AWA. Furthermore, some states have their own regulations, including general anti-cruelty legislation, which establish certain standards in handling animals. Comparable rules, regulations, and or obligations exist in many foreign jurisdictions. If our contractors or we fail to comply with regulations concerning the treatment of animals used in research, we may be subject to fines and penalties and adverse publicity, and our operations could be adversely affected.

If the FDA or similar foreign agencies or intermediaries impose requirements or an alternative product classification more onerous than we anticipate, our business could be adversely affected.

The development plan for our lead product candidate is based on our anticipation of pursuing the medical device regulatory pathway, and in February 2015 we received confirmation from The British Standards Institution (“BSI”), a Notified Body (which is a private commercial entity designated by the national government of an European Union (“EU”) member state as being competent to make independent judgments about whether a medical device complies with applicable regulatory requirements) in the EU, that AC5 fulfills the definition of a medical device within the EU and will be classified as such in consideration for CE mark designation. However, the FDA and other applicable foreign agencies, including European Competent Authorities, will have authority to finally determine the regulatory route for our product candidates in their jurisdictions. If the FDA or similar foreign agencies or intermediaries deem our product to be a member of a category other than a medical device, such as a drug or biologic, or impose additional requirements on our pre-clinical and clinical development than we presently anticipate, financing needs would increase, the timeline for product approval would lengthen, the program complexity and resource requirements would increase, and the probability of successfully commercializing a product would decrease. Any or all of those circumstances would materially adversely affect our business.

If we are not able to secure and maintain relationships with third parties that are capable of conducting clinical trials on our product candidates and support our regulatory submissions, our product development efforts, and subsequent regulatory approvals could be adversely impacted.

Our management has limited experience in conducting preclinical development activities and clinical trials. As a result, we have relied and will need to continue to rely on third party research institutions, organizations and clinical investigators to conduct our preclinical and clinical trials and support our regulatory submissions. If we are unable to

reach agreement with qualified research institutions, organizations and clinical investigators on acceptable terms, or if any resulting agreement is terminated prior to the completion of our clinical trials, then our product development efforts could be materially delayed or otherwise harmed. Further, our reliance on third parties to conduct our clinical trials and support our regulatory submissions will provide us with less control over the timing and cost of those trials, the ability to recruit suitable subjects to participate in the trials, and the timing, cost, and probability of success for the regulatory submissions. Moreover, the FDA and other regulatory authorities require that we comply with standards, commonly referred to as good clinical practices (“GCP”), for conducting, recording and reporting the results of our preclinical development activities and our clinical trials, to assure that data and reported results are credible and accurate and that the rights, safety and confidentiality of trial participants are protected. Additionally, both we and any third party contractor performing preclinical and clinical studies are subject to regulations governing the treatment of human and animal subjects in performing those studies. Our reliance on third parties that we do not control does not relieve us of those responsibilities and requirements. If those third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical development activities or clinical trials in accordance with regulatory requirements or stated protocols, we may not be able to obtain, or may be delayed in obtaining, regulatory approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. Any of those circumstances would materially harm our business and prospects.

Any clinical trials that are planned or are conducted on our product candidates may not start or may fail.

Clinical trials are lengthy, complex and extremely expensive processes with uncertain expenditures and results and frequent failures. While we believe that the first clinical trial for AC5 will be initiated during the fourth quarter of calendar year 2015, clinical trials that are planned or which commence for any of our product candidates could be delayed, limited or fail for a number of reasons, including if:

• the FDA or other regulatory authorities, or other relevant decision making bodies do not grant permission to proceed or place a trial on clinical hold due to safety concerns or other reasons;

- sufficient suitable subjects do not enroll or remain in our trials;
- we fail to produce necessary amounts of product candidate;
- subjects experience an unacceptable rate of efficacy of the product candidate;

• subjects experience an unacceptable rate or severity of adverse side effects, demonstrating a lack of safety of the product candidate;

- any portion of the trial or related studies produces negative or inconclusive results or other adverse events;

• reports from preclinical or clinical testing on similar technologies and products raise safety and/or efficacy concerns;

• third-party clinical investigators lose their licenses or permits necessary to perform our clinical trials, do not perform their clinical trials on the anticipated schedule or consistent with the clinical trial protocol, GCP or regulatory requirements, or other third parties do not perform data collection and analysis in a timely or accurate manner;

• inspections of clinical trial sites by the FDA or an institutional review board (“**IRB**”) or other applicable regulatory authorities find violations that require us to undertake corrective action, suspend or terminate one or more testing sites, or prohibit us from using some or all of the resulting data in support of our marketing applications with the FDA or other applicable agencies;

• manufacturing facilities of our third party manufacturers are ordered by the FDA or other government or regulatory authorities to temporarily or permanently shut down due to violations of current good manufacturing practices (“**cGMP**”) or other applicable requirements;

• third-party contractors become debarred or suspended or otherwise penalized by the FDA or other government or regulatory authorities for violations of regulatory requirements;

• the FDA or other regulatory authorities impose requirements on the design, structure or other features of the clinical trials for our product candidates that we and/or our third party contractors are unable to satisfy;

• one or more IRBs refuses to approve, suspends or terminates a trial at an investigational site, precludes enrollment of additional subjects, or withdraws its approval of the trial;

- the FDA or other regulatory authorities seek the advice of an advisory committee of physician and patient representatives that may view the risks of our product candidates as outweighing the benefits;

• the FDA or other regulatory authorities require us to expand the size and scope of the clinical trials, which we may not be able to do; or

•

the FDA or other regulatory authorities impose prohibitive post-marketing restrictions on any of our product candidates that attain regulatory approval.

Any delay or failure of one or more of our clinical trials may occur at any stage of testing. Any such delay could cause our development costs to materially increase, and any such failure could significantly impair our business plans, which would materially harm our financial condition and operations.

We cannot market and sell any product candidate in the U.S. or in any other country or region if we fail to obtain the necessary regulatory approvals or certifications from applicable government agencies.

We cannot sell our product candidates in any country until regulatory agencies grant marketing approval or other required certifications. The process of obtaining such approval is lengthy, expensive and uncertain. If we are able to obtain such approvals for our lead product candidate or any other product candidate we may pursue, which we may never be able to do, it would likely be a process that takes many years to achieve.

To obtain marketing approvals in the U.S. for our product candidates, we believe that we must, among other requirements, complete carefully controlled and well-designed clinical trials sufficient to demonstrate to the FDA that the product candidate is safe and effective for each indication for which we seek approval. As described above, many factors could cause those trials to be delayed or to fail.

We believe that the pathway to marketing approval in the U.S. for our lead product candidate will likely require the process of FDA Premarket Approval (“PMA”) for the product, which is based on novel technologies and likely will be classified as a Class III medical device. This approval pathway can be lengthy and expensive, and is estimated to take from one to three years or longer from the time the PMA application is submitted to the FDA until approval is obtained, if approval can be obtained at all.

Similarly, to obtain approval to market our product candidates outside of the U.S., we will need to submit clinical data concerning our product candidates to and receive marketing approval or other required certifications from governmental or other agencies in those countries, which in certain countries includes approval of the price we intend to charge for a product. For instance, in order to obtain the certification needed to market our lead product candidate in the EU, we believe that we will need to obtain a CE mark for the product, which entails scrutiny by applicable regulatory agencies and bears some similarity to the PMA process, including completion of one or more successful clinical trials.

We may encounter delays or rejections if changes occur in regulatory agency policies, if difficulties arise within regulatory or related agencies such as, for instance, any delays in their review time, or if reports from preclinical and clinical testing on similar technology or products raise safety and/or efficacy concerns during the period in which we develop a product candidate or during the period required for review of any application for marketing approval or certification.

Any difficulties we encounter during the approval or certification process for any of our product candidates would have a substantial adverse impact on our operations and financial condition and could cause our business to fail.

We cannot guarantee that we will be able to effectively market our product candidates.

A significant part of our success depends on the various marketing strategies we plan to implement. Our business model has historically focused solely on product development, and we have never attempted to commercialize any product. There can be no assurance as to the success of any such marketing strategy that we develop or that we will be able to build a successful sales and marketing organization. If we cannot effectively market those products we seek to commercialize directly, such products' prospects will be harmed.

Any product for which we obtain required regulatory approvals could be subject to post-approval regulation, and we may be subject to penalties if we fail to comply with such post-approval requirements.

Any product for which we are able to obtain marketing approval or other required certifications, and for which we are able to obtain approval of the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and comparable foreign regulatory authorities, including through periodic inspections. These requirements include, without limitation, submissions of safety and other post-marketing information and reports, registration requirements, cGMP requirements relating to quality control, quality assurance and corresponding maintenance of records and documents. Maintaining compliance with any such regulations that may be applicable to us or our product candidates

in the future would require significant time, attention and expense. Even if marketing approval of a product is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or other conditions of approval, or may contain requirements for costly and time consuming post-marketing approval testing and surveillance to monitor the safety or efficacy of the product. Discovery after approval of previously unknown problems with any approved product candidate or related manufacturing processes, or failure to comply with regulatory requirements, may result in consequences to us such as:

• restrictions on the marketing or distribution of a product, including refusals to permit the import or export of the product;

- the requirement to include warning labels on the products;
- withdrawal or recall of the products from the market;

• refusal by the FDA or other regulatory agencies to approve pending applications or supplements to approved applications that we may submit;

- suspension of any ongoing clinical trials;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of marketing approvals or certifications; or
- civil or criminal penalties.

If any of our product candidates achieves required regulatory marketing approvals or certifications in the future, the subsequent occurrence of any such post-approval consequences would materially adversely affect our business and operations.

Current or future legislation may make it more difficult and costly for us to obtain marketing approval or other certifications of our product candidates.

In 2007, the Food and Drug Administration Amendments Act of 2007 (the “**FDAAA**”) was adopted. This legislation grants significant powers to the FDA, many of which are aimed at assuring the safety of medical products after approval. For example, the FDAAA grants the FDA authority to impose post-approval clinical study requirements, require safety-related changes to product labeling and require the adoption of complex risk management plans. Pursuant to the FDAAA, the FDA may require that a new product be used only by physicians with specialized training, only in specified health care settings, or only in conjunction with special patient testing and monitoring. The legislation also includes requirements for disclosing clinical study results to the public through a clinical study registry, and renewed requirements for conducting clinical studies to generate information on the use of products in pediatric patients. Under the FDAAA, companies that violate these laws are subject to substantial civil monetary penalties. The requirements and changes imposed by the FDAAA, or any other new legislation, regulations or policies that grant the FDA or other regulatory agencies additional authority that further complicates the process for obtaining marketing approval and/or further restricts or regulates post-marketing approval activities, could make it more difficult and more costly for us to obtain and maintain approval of any of our product candidates.

Public perception of ethical and social issues may limit or discourage the type of research we conduct.

Our clinical trials will involve human subjects, and third parties with whom we contract also conduct research involving animal subjects. Governmental authorities could, for public health or other purposes, limit the use of human or animal research or prohibit the practice of our technology. Further, ethical and other concerns about our or our third party contractors’ methods, particularly the use of human subjects in clinical trials or the use of animal testing, could delay our research and preclinical and clinical trials, which would adversely affect our business and financial condition.

Use of third parties to manufacture our product candidates may increase the risk that preclinical development, clinical development and potential commercialization of our product candidates could be delayed, prevented or impaired.

We have limited personnel with experience in medical device development and manufacturing, do not own or operate manufacturing facilities, and generally lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We currently intend to outsource all or most of the clinical and commercial manufacturing and packaging of our product candidates to third parties. However, we have not established long-term agreements with any third party manufacturers for the supply of any of our product candidates. There are a limited number of manufacturers that operate under cGMP regulations and that are capable of and willing to manufacture our lead product candidate utilizing the manufacturing methods that are required to produce that

product candidate, and our product candidates will compete with other product candidates for access to qualified manufacturing facilities. If we have difficulty locating third party manufacturers to develop our product candidates for preclinical and clinical work, then our product development programs will experience delays and otherwise suffer. We may also be unable to enter into agreements for the commercial supply of products with third party manufacturers in the future, or may be unable to do so when needed or on acceptable terms. Any such events could materially harm our business.

Reliance on third party manufacturers entails risks to our business, including without limitation:

the failure of the third party to maintain regulatory compliance, quality assurance, and general expertise in advanced manufacturing techniques and processes that may be necessary for the manufacture of our product candidates;

- limitations on supply availability resulting from capacity and scheduling constraints of the third parties;

failure of the third party manufacturers to meet the demand for the product candidate, either from future customers or for preclinical or clinical trial needs;

- the possible breach of the manufacturing agreement by the third party; and

the possible termination or non-renewal of the agreement by the third party at a time that is costly or inconvenient for us.

The failure of any of our contract manufacturers to maintain high manufacturing standards could result in harm to clinical trial participants or patients using the products. Such failure could also result in product liability claims, product recalls, product seizures or withdrawals, delays or failures in testing or delivery, cost overruns or other problems that could seriously harm our business or profitability. Further, our contract manufacturers will be required to adhere to FDA and other applicable regulations relating to manufacturing practices. Those regulations cover all aspects of the manufacturing, testing, quality control and recordkeeping relating to our product candidates and any products that we may commercialize in the future. The failure of our third party manufacturers to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval or other required certifications of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business, financial condition and operations.

Materials necessary to manufacture our product candidates may not be available on commercially reasonable terms, or at all, which may delay or otherwise hinder the development and commercialization of those product candidates.

We will rely on the manufacturers of our product candidates to purchase from third party suppliers the materials necessary to produce the compounds for preclinical and clinical studies, and may continue to rely on those suppliers for commercial distribution if we obtain marketing approval or other required certifications for any of our product candidates. The materials to produce our products may not be available when needed or on commercially reasonable terms, and the prices for such materials may be susceptible to fluctuations. We do not have any control over the process or timing of the acquisition of these materials by our manufacturers. Moreover, we currently do not have any agreements relating to the commercial production of any of these materials. If these materials cannot be obtained for our preclinical and clinical studies, product testing and potential regulatory approval of our product candidates would be delayed, which would significantly impact our ability to develop our product candidates and materially adversely affect our ability to meet our objectives and obtain operations success.

We may not be successful in maintaining or establishing collaborations, which could adversely affect our ability to develop and, if required regulatory approvals are obtained, commercialize our product candidates.

As demonstrated by the Project Agreement that we entered into with NUIG on May 28, 2015, we intend to collaborate with physicians, patient advocacy groups, foundations, government agencies, and/or other third parties to assist with the development of our product candidates. If required regulatory approvals are obtained for any of our product candidates, then we may consider entering into additional collaboration arrangements with medical technology, pharmaceutical or biotechnology companies and/or seek to establish strategic relationships with marketing partners for the development, sale, marketing and/or distribution of our products within or outside of the U.S. If we elect to expand our current relationship with NUIG and/or seek additional collaborators in the future but are unable to reach agreements with NUIG and/or such other collaborators, as applicable, then we may fail to meet our business objectives for the affected product or program. Moreover, collaboration arrangements are complex and time consuming to negotiate, document and implement, and we may not be successful in our efforts, if any, to establish and implement additional collaborations or other alternative arrangements. The terms of any collaboration or other arrangements that we establish may not be favorable to us, and the success of any such collaboration will depend heavily on the efforts and activities of our collaborators. Any failure to engage successful collaborators could cause delays in our product development and/or commercialization efforts, which could harm our financial condition and operational results.

We compete with other pharmaceutical and medical device companies, including companies that may develop products that make our product candidates less attractive or obsolete.

The medical device, pharmaceutical and biotechnology industries are highly competitive. If our product candidates become available for commercial sale, we will compete in that competitive marketplace. There are several products on the market or in development that could be competitors with our lead product candidate. Further, most of our competitors have greater resources or capabilities and greater experience in the development, approval and commercialization of medical devices or other products than we do. We may not be able to compete successfully against them. We also compete for funding with other companies in our industry that are focused on discovering and developing novel improvements in surgical bleeding prevention.

We anticipate that competition in our industry will increase. In addition, the healthcare industry is characterized by rapid technological change, resulting in new product introductions and other technological advancements. Our competitors may develop and market products that render our lead product candidate or any future product candidate we may seek to develop non-competitive or otherwise obsolete. Any such circumstances could cause our operations to suffer.

If we fail to generate market acceptance of our product candidates and establish programs to educate and train surgeons as to the distinctive characteristics of our product candidates, we will not be able to generate revenues on our product candidates.

Acceptance in the marketplace of our lead product candidate depends in part on our and our third party contractors' ability to establish programs for the training of surgeons in the proper usage of that product candidate, which will require significant expenditure of resources. Convincing surgeons to dedicate the time and energy necessary to properly train to use new products and techniques is challenging, and we may not be successful in those efforts. If surgeons are not properly trained, they may ineffectively use our product candidates. Such misuse could result in unsatisfactory patient outcomes, patient injury, negative publicity or lawsuits against us. Accordingly, even if our product candidates are superior to alternative treatments, our success will depend on our ability to gain and maintain market acceptance for those product candidates among certain select groups of the population and develop programs to effectively train them to use those products. If we fail to do so, we will not be able to generate revenue from product sales and our business, financial condition and results of operations will be adversely affected.

We face uncertainty related to pricing, reimbursement and healthcare reform, which could reduce our potential revenues.

If our product candidates are approved for commercialization, any sales will depend in part on the availability of coverage and reimbursement from third-party payers such as government insurance programs, including Medicare and Medicaid, private health insurers, health maintenance organizations and other healthcare related organizations. If our product candidates obtain marketing approval, pricing and reimbursement may be uncertain. Both the federal and state governments in the U.S. and foreign governments continue to propose and pass new legislation affecting coverage and reimbursement policies, which are designed to contain or reduce the cost of healthcare. Further, federal, state and foreign healthcare proposals and reforms could limit the prices that can be charged for the product candidates that we may develop, which may limit our commercial opportunity. Adoption of our product candidates by the medical community may be limited if doctors and hospitals do not receive adequate partial or full reimbursement for use of our products, if any are commercialized. In some foreign jurisdictions, marketing approval or allowance could be dependent upon pre-marketing price negotiations. As a result, any denial of private or government payer coverage or inadequate reimbursement for procedures performed using our products, before or upon commercialization, could harm our business and reduce our prospects for generating revenue.

In addition, the U.S. Congress recently adopted legislation regarding health insurance. As a result of this new legislation, substantial changes could be made to the current system for paying for healthcare in the U.S., including modifications to the existing system of private payers and government programs, such as Medicare, Medicaid and State Children's Health Insurance Program, creation of a government-sponsored healthcare insurance source, or some combination of those, as well as other changes. Restructuring the coverage of medical care in the U.S. could impact reimbursement for medical devices such as our product candidates. If reimbursement for our approved product candidates, if any, is substantially less than we expect, or rebate obligations associated with them are substantially

increased, our business could be materially and adversely impacted.

The use of our product candidates in human subjects may expose us to product liability claims, and we may not be able to obtain adequate insurance or otherwise defend against any such claims.

We face an inherent risk of product liability claims and do not currently have product liability insurance coverage. We will need to obtain insurance coverage if and when we begin clinical trials and commercialization of any of our product candidates. We may not be able to obtain or maintain product liability insurance on acceptable terms with adequate coverage. If claims against us exceed any applicable insurance coverage we may obtain, then our business could be adversely impacted. Regardless of whether we would be ultimately successful in any product liability litigation, such litigation could consume substantial amounts of our financial and managerial resources, which could significantly harm our business.

Risks Related to our Intellectual Property

If we are unable to obtain and maintain protection for our intellectual property rights, the value of our technology and products will be adversely affected.

Our success will depend in large part on our ability to obtain and maintain protection in the U.S. and other countries for the intellectual property rights covering or incorporated into our technology and products. The ability to obtain patents covering technology in the field of medical devices generally is highly uncertain and involves complex legal, technical, scientific and factual questions. We may not be able to obtain and maintain patent protection relating to our technology or products. Even if issued, patents issued or licensed to us may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, or determined not to cover our product candidates or our competitors' products, which could limit our ability to stop competitors from marketing identical or similar products. One of our licensed MIT European patents has been opposed in an administrative hearing. Further, we cannot be certain that we were the first to make the inventions claimed in the patents we own or license, or that protection of the inventions set forth in those patents was the first to be filed in the U.S. Third parties that have filed patents or patent applications covering similar technologies or processes may challenge our claim of sole right to use the intellectual property covered by the patents we own or exclusively license. Moreover, changes in applicable intellectual property laws or interpretations thereof in the U.S. and other countries may diminish the value of our intellectual property rights or narrow the scope of our patent protection. Any failure to obtain or maintain adequate protection for our intellectual property would materially harm our business, product development programs and prospects.

In addition, our proprietary information, trade secrets and know-how are important components of our intellectual property rights. We seek to protect our proprietary information, trade secrets, know-how and confidential information, in part, with confidentiality agreements with our employees, corporate partners, outside scientific collaborators, sponsored researchers, consultants and other advisors. We also have invention or patent assignment agreements with our employees and certain consultants and advisors. If our employees or consultants breach those agreements, we may not have adequate remedies for any of those breaches. In addition, our proprietary information, trade secrets and know-how may otherwise become known to or be independently developed by others. Enforcing a claim that a party illegally obtained and is using our proprietary information, trade secrets and know-how is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. may be less willing to protect trade secrets. Costly and time consuming litigation could be necessary to seek to enforce and determine the scope of our intellectual property rights, and failure to obtain or maintain protection thereof could adversely affect our competitive business position and results of operations.

We do not have exclusive rights to certain intellectual property as our patent portfolio includes certain patents that are jointly owned with our collaborators and others that have been in-licensed on a non-exclusive basis.

As of December 31, 2014, we jointly owned a small number of U.S. patents, U.S. patent applications and international (PCT) patent applications with certain of our collaborators. The rights of our collaborators to these patents, patent applications and other compounds under the collaborations may in the future restrict our ability to further develop or generate revenues from those compounds except through the collaborations.

Our patent portfolio, which covers self-assembling peptides and methods of use thereof, includes 14 applications, one of which has been allowed and 13 of which are pending in a total of five jurisdictions. We have also entered into a license agreement with MIT pursuant to which we have been granted exclusive rights under one portfolio of patents and non-exclusive rights under another portfolio of patents. The portfolio exclusively licensed from MIT includes seven patents that have been either allowed, issued or granted and 15 applications that are pending in a total of 10 jurisdictions. The portfolio non-exclusively licensed from MIT includes a number of PCT applications which have now entered the national and regional phases outside of the US, including 7 issued patents in three jurisdictions that expire between 2016 and 2027 (absent patent term extension), and three pending patent applications in four jurisdictions. Because a portion of our patent portfolio has been in-licensed on a non-exclusive basis, other parties may be able to develop, manufacture, market and sell products with similar features covered by the same patent rights and technologies, which in turn could significantly undercut the value of any of our product candidates and adversely affect our business prospects.

If we lose certain intellectual property rights owned by third parties and licensed to us, our business could be materially harmed.

We have entered into certain in-license agreements with MIT and with certain other third parties, and may seek to enter into additional in-license agreements relating to other intellectual property rights in the future. To the extent we and our product candidates rely heavily on any such in-licensed intellectual property, we are subject to our and the counterparty's compliance with the terms of such agreements in order to maintain those rights. Presently, we, our lead product candidate and our business plans are dependent on the patent and other intellectual property rights that are licensed to us under our license agreement with MIT. Although that agreement has a durational term through the life of the licensed patents, it also imposes certain diligence, capital raising, and other obligations on us, our breach of which could permit MIT to terminate the agreement. Further, we are responsible for all patent prosecution and maintenance fees under that agreement, and a failure to pay such fees on a timely basis could also entitle MIT to terminate the agreement. Any failure by us to satisfy our obligations under our license agreement with MIT or any other dispute or other issue relating to that agreement could cause us to lose some or all of our rights to use certain intellectual property that is material to our business and our lead product candidate, which would materially harm our product development efforts and could cause our business to fail.

If we infringe or are alleged to infringe the intellectual property rights of third parties, our business and financial condition could suffer.

Our research, development and commercialization activities, as well as any product candidates or products resulting from those activities, may infringe or be accused of infringing a patent or other intellectual property under which we do not hold a license or other rights. Third parties may own or control those patents or other rights in the U.S. or abroad, and could bring claims against us that would cause us to incur substantial time, expense, and diversion of management attention. If a patent or other intellectual property infringement suit were brought against us, we could be forced to stop or delay research, development, manufacturing or sales, if any, of the applicable product or product candidate that is the subject of the suit. In order to avoid or settle potential claims with respect to any of the patent or other intellectual property rights of third parties, we may choose or be required to seek a license from a third party and be required to pay license fees or royalties or both. Any such license may not be available on acceptable terms, or at all. Even if we or our future collaborators were able to obtain a license, the rights granted to us or them could be non-exclusive, which could result in our competitors gaining access to the same intellectual property rights and materially negatively affecting the commercialization potential of our planned products. Ultimately, we could be prevented from commercializing one or more product candidates, or be forced to cease some aspects of our business operations, if, as a result of actual or threatened infringement claims, we are unable to enter into licenses on acceptable terms or at all or otherwise settle such claims. Further, if any such claims were successful against us, we could be forced to pay substantial damages. Any of those results could significantly harm our business, prospects and operations.

Risks Related to Ownership of our Common Stock

There is not now, and there may not ever be, an active market for our Common Stock, which trades in the over-the-counter market in low volumes and at volatile prices.

There currently is a limited market for our Common Stock. Although our Common Stock is quoted on the OTCQB, an over-the-counter quotation system, trading of our Common Stock is extremely limited and sporadic and generally at very low volumes. Further, the price at which our Common Stock may trade is volatile and we expect that it will continue to fluctuate significantly in response to various factors, many of which are beyond our control. The stock market in general, and securities of small-cap companies driven by novel technologies in particular, has experienced extreme price and volume fluctuations in recent years. Continued market fluctuations could result in further volatility in the price at which our Common Stock may trade, which could cause its value to decline. To the extent we seek to raise capital in the future through the issuance of equity, those efforts could be limited or hindered by low and/or volatile market prices for our Common Stock.

We do not now meet the initial listing standards of the Nasdaq Stock Market or any other national securities exchange. We presently anticipate that our Common Stock will continue to be quoted on the OTCQB or another over-the-counter quotation system. In those venues, our stockholders may find it difficult to obtain accurate quotations as to the market value of their shares of our Common Stock, and may find few buyers to purchase their stock and few market makers to support its price.

A more active market for our Common Stock may never develop. As a result, investors must bear the economic risk of holding their shares of our Common Stock for an indefinite period of time.

Our Common Stock is a “penny stock.”

The SEC has adopted regulations that generally define “penny stock” as an equity security that has a market price of less than \$5.00 per share, subject to specific exemptions. The market price of our Common Stock is, and is expected to continue to be in the near term, less than \$5.00 per share and is therefore a “penny stock.” Brokers and dealers effecting transactions in “penny stock” must disclose certain information concerning the transaction, obtain a written agreement from the purchaser and determine that the purchaser is reasonably suitable to purchase the securities. Those rules may restrict the ability of brokers or dealers to sell our Common Stock and may affect the ability of our stockholders to sell their shares of our Common Stock. In addition, if our Common Stock continues to be quoted on the OTCQB as we expect, then our stockholders may find it difficult to obtain accurate quotations for our stock, and may find few buyers to purchase our stock and few market makers to support its price.

If we issue additional shares in the future, including issuances of shares upon exercise of the Series D Warrants, the 2014 Warrants or conversion of our Convertible Notes, our existing stockholders will be diluted.

Our articles of incorporation authorize the issuance of up to 300,000,000 shares of Common Stock. In connection with the 2015 Private Placement Financing that concluded on July 2, 2015, we issued an aggregate of 14,390,754 shares of our Common Stock, which equaled approximately 18% of the 78,766,487 shares of our Common Stock that were issued and outstanding immediately prior to the commencement of the 2015 Private Placement Financing. Upon the closing of the 2015 Private Placement Financing, we also issued Series D Warrants to acquire up to an additional 14,390,754 shares of our Common Stock at an initial exercise price of \$0.25 per share.

Similarly, between March 11, 2015 and through March 13, 2015, we entered into substantially similar Convertible Notes Subscription Agreements with each of the Convertible Notes Investors pursuant to which we issued Convertible Notes to the Convertible Notes Investors in the aggregate principal amount of \$750,000. The Convertible Notes bear interest on the unpaid principal balance 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 until either (a) converted into shares of our Common Stock; or (b) the outstanding principal and accrued interest on the Convertible Notes is paid in full by us. At any time prior to March 13, 2016, the holders of the Convertible Notes have the right to convert some or all of such Convertible Notes into the number of shares of our 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 was \$0.20 per share on the date the Notes Offering closed. Interest on the Convertible Notes becomes due and payable upon their conversion or their maturity date, March 13, 2016, and may become due and payable upon the occurrence of an event of default under the Convertible Notes, as defined in the Convertible Notes; *provided, however*, that in the event that the repayment of the indebtedness accrued under the Convertible Notes is not permitted under the Subordination Agreements, (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 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. Assuming that the remaining principal outstanding under the Convertible Notes as of October 15, 2015 and the interest accrued thereunder is converted into shares of our Common Stock on March 13, 2016, a total of 2,516,766 shares may be issued upon the conversion of the Convertible Notes.

Upon the closing of the 2014 Private Placement Financing on February 4, 2014, we issued an aggregate of 11,400,000 shares of our Common Stock, which equaled approximately 16% of our currently issued and outstanding Common Stock on the date the 2014 Private Placement Financing closed. Upon the closing of the 2014 Private Placement Financing, we also issued three series of Warrants to acquire up to an additional 34,200,000 shares of our Common Stock at initial exercise prices ranging from \$0.30 per share (the Series A Warrants), \$0.35 per share (the Series B Warrants), and \$0.40 per share (the Series C Warrants). On December 1, 2014, the Company entered into that certain Amendment to Series A Warrants, Series B Warrants and Series C Warrants to Purchase Common Stock, dated as of December 1, 2014, with Cranshire pursuant to which, among other things, the exercise prices of the Series B Warrants and Series C Warrants were lowered to \$0.20 per share. Following the December 1, 2014 amendment, 4,000,000 shares underlying the Series B Warrants were exercised, and the remaining 7,400,000 expired unexercised on January

3, 2015 when the term of the Series B Warrants expired. As a result of the conversion price of our Convertible Notes, the closing of the Notes Offering and the subsequent issuance of the Convertible Notes triggered the anti-dilution provisions of the Series A Warrants, which in turn reduced the exercise price of the Series A Warrants to \$0.20 per share and increased the aggregate number of shares issuable under the Series A Warrants by 5,700,000 shares (or fifty-percent (50%)) from 11,400,000 shares to 17,100,000 shares. As of October 15, 2015, up to 3,400,000 shares may be acquired upon the exercise of the Series C Warrants and up to 9,350,000 shares may be acquired upon the exercise of the Series A Warrants.

Additionally, pursuant to the 2013 Plan, as of October 15, 2015, we were authorized to grant equity awards to our employees, directors and consultants for up to an aggregate of 15,120,708 shares (net of 1,256,250 options already exercised and 300,000 shares of restricted stock awarded) of our Common Stock (and such authorized amount may increase by up to 3 million shares on the first business day of each following fiscal year as set forth in the 2013 Plan), and in addition to the Series D Warrants granted in connection with the 2015 Private Placement Financing, the 2014 Warrants granted in connection with the 2014 Private Placement Financing and the Convertible Notes issued in the Notes Offering, there are currently outstanding warrants to acquire up to 145,985 shares of our Common Stock. Any future grants of options, warrants or other securities exercisable or convertible into our Common Stock, or the exercise or conversion of such shares, and any sales of such shares in the market, could have an adverse effect on the market price of our Common Stock.

In addition to capital raising activities, other possible business and financial uses for our authorized Common Stock include, without limitation, future stock splits, acquiring other companies, businesses or products in exchange for shares of Common Stock, issuing shares of our Common Stock to partners in connection with strategic alliances, attracting and retaining employees by the issuance of additional securities under our various equity compensation plans, compensating consultants by issuing shares or options to purchase shares of our Common Stock, or other transactions and corporate purposes that our Board of Directors deems are in the Company's best interest. By way of example, on August 6, 2015, we issued an aggregate of 600,000 shares of restricted stock in connection with our entrance into separate consulting agreements with two investor relations firms, Excelsior Global Advisors LLC and Acorn Management Partners, LLC, in each case in consideration of the services to be provided under and in accordance with the terms of each consulting agreement. Additionally, shares of Common Stock could be used for anti-takeover purposes or to delay or prevent changes in control or management of the Company. We cannot provide assurances that any issuances of Common Stock will be consummated on favorable terms or at all, that they will enhance stockholder value, or that they will not adversely affect our business or the trading price of our Common Stock. The issuance of any such shares will reduce the book value per share and may contribute to a reduction in the market price of the outstanding shares of our Common Stock. If we issue any such additional shares, such issuance will reduce the proportionate ownership and voting power of all current shareholders. Further, such issuance may result in a change of control of our corporation.

Future sales of our Common Stock or rights to purchase Common Stock, or the perception that such sales could occur, could cause our stock price to fall.

As noted above under the risk factor entitled, "***We will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts and could cause our business to fail,***" we will need to obtain additional financing prior to or during May 2016 to continue operations and fund our planned future operations. To raise capital, we may sell Common Stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. Any such sales of our Common Stock by us or resale of our Common Stock by our existing stockholders could cause the market price of our Common Stock to decline.

FINRA sales practice requirements may limit a stockholder's ability to buy and sell our stock.

In addition to the "penny stock" rules described above, FINRA has adopted rules that require that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that speculative low priced securities will not be suitable for at least some customers. These FINRA requirements make it more difficult for broker-dealers to recommend that at least some of their customers buy our Common Stock, which may limit the ability of our stockholders to buy and sell our Common Stock and could

have an adverse effect on the market for our shares.

There may be additional risks because we completed a reverse merger transaction in June 2013.

Additional risks may exist because we completed a “reverse merger” transaction in June 2013. Securities analysts of major brokerage firms may not provide coverage of the Company because there may be little incentive to brokerage firms to recommend the purchase of our Common Stock. There may also be increased scrutiny by the SEC and other government agencies and holders of our securities due to the nature of the transaction, as there has been increased focus on transactions such as the Merger in recent years. Further, since the Company existed as a “shell company” under applicable rules of the SEC up until the closing of the Merger on June 26, 2013, there will be certain restrictions and limitations on the Company going forward relating to any potential future issuances of additional securities to raise funding and compliance with applicable SEC rules and regulations.

The Company may have material liabilities that were not discovered before the closing of the Merger.

The Company may have material liabilities that were not discovered before the consummation of the Merger. We could experience losses as a result of any such unasserted liabilities that are eventually found to be incurred, which could materially harm our business and financial condition. Although the Merger Agreement contained customary representations and warranties from the Company concerning its assets, liabilities, financial condition and affairs, there may be limited or no recourse against the Company’s prior owners or principals in the event those prove to be untrue. As a result, the stockholders of the Company bear risks relating to any such unknown or unasserted liabilities.

Certain of our directors and officers own a significant percentage of our capital stock and are able to exercise significant influence over the Company.

Certain of our directors and executive officers own a significant percentage of our outstanding capital stock. As of October 15, 2015, Dr. Terrence W. Norchi, our President, Chief Executive Officer and a director, Dr. Avtar Dhillon, the Chairman of our Board of Directors, and James R. Sulat, a director, beneficially own (as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) approximately 20% of our shares of Common Stock. Accordingly, these members of our Board of Directors and management team have substantial voting power to approve matters requiring stockholder approval, including without limitation the election of directors, and have significant influence over our affairs. This concentration of ownership could have the effect of delaying or preventing a change in control of our Company, even if such a change in control would be beneficial to our stockholders.

The elimination of monetary liability against our directors and officers under Nevada law and the existence of indemnification rights held by our directors, officers and employees may result in substantial expenditures by us and may discourage lawsuits against our directors, officers and employees.

Our articles of incorporation eliminate the personal liability of our directors and officers to our Company and our stockholders for damages for breach of fiduciary duty as a director or officer to the extent permissible under Nevada law. Further, our amended and restated bylaws provide that we are obligated to indemnify any of our directors or officers to the fullest extent authorized by Nevada law and, subject to certain conditions, advance the expenses incurred by any director or officer in defending any action, suit or proceeding prior to its final disposition. Those indemnification obligations could result in our Company incurring substantial expenditures to cover the cost of settlement or damage awards against our directors or officers, which we may be unable to recoup. These provisions and resultant costs may also discourage us from bringing a lawsuit against any of our current or former directors or officers for breaches of their fiduciary duties, and may similarly discourage the filing of derivative litigation by our stockholders against our directors and officers even if such actions, if successful, might otherwise benefit us or our stockholders.

We are subject to the reporting requirements of federal securities laws, compliance with which involves significant time, expense and expertise.

We are a public reporting company in the U.S., and, accordingly, are subject to the information and reporting requirements of the Exchange Act and other federal securities laws, including the obligations imposed by the Sarbanes-Oxley Act. The costs associated with preparing and filing annual, quarterly and current reports, proxy statements and other information with the SEC in the ordinary course, as well as preparing and filing audited financial statements, has caused, and could continue to cause, our operational expenses to remain at higher levels or continue to increase.

Our present management team has limited experience in managing public companies. It will be time consuming, difficult and costly for our management team to acquire additional expertise and experience in operating a public company, and to develop and implement the additional internal controls and reporting procedures required by Sarbanes-Oxley and other applicable securities laws. We will need to hire additional financial reporting, internal controls, accounting and other finance staff as well as additional IT systems in order to develop and implement appropriate internal controls and reporting procedures as required by applicable securities regulations for public companies, which we may not be able to do on a timely basis or at all.

Shares of our Common Stock that have not been registered under federal securities laws are subject to resale restrictions imposed by Rule 144. In addition, any shares of our Common Stock that are held by affiliates, including any that are registered, will be subject to the resale restrictions of Rule 144.

Rule 144 imposes requirements on us and our stockholders that must be met in order to effect a sale thereunder. As a result, it will be more difficult for us to raise funding to support our operations through the sale of debt or equity securities unless we agree to register such securities under the Securities Act, which could cause us to expend significant additional time and cash resources and which we presently have no intention to pursue. Further, it may be more difficult for us to compensate our employees and consultants with our securities instead of cash. We were a shell company prior to the closing of the Merger, and such status could also limit our use of our securities to pay for any acquisitions we may seek to pursue in the future (although none are currently planned), and could cause the value of our securities to decline. In addition, any shares held by affiliates, including shares received in any registered offering, will be subject to certain additional requirements in order to effect a sale of such shares under Rule 144.

We do not intend to pay cash dividends on our capital stock in the foreseeable future.

We have never declared or paid any dividends on our shares and do not anticipate paying any such dividends in the foreseeable future. Any future payment of cash dividends would depend on our financial condition, contractual restrictions, solvency tests imposed by applicable corporate laws, results of operations, anticipated cash requirements and other factors and will be at the discretion of our Board of Directors. In addition, under the terms of the MLSC Loan Agreement, we must obtain MLSC's prior consent before declaring or paying any dividends during the term of the MLSC Loan Agreement. As a result, our stockholders should not expect that we will ever pay cash or other dividends on our outstanding capital stock.

We are at risk of securities class action litigation that could result in substantial costs and divert management's attention and resources.

In the past, securities class action litigation has been brought against companies following periods of volatility of its securities in the marketplace, particularly following a company's initial public offering. Due to the volatility of our stock price, we could be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources.

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks, uncertainties and assumptions. In some cases, you can identify forward-looking statements by terminology such as "if," "shall," "may," "might," "will likely result," "should," "expect," "plan," "anticipate," "believe," "estimate," "project," "intend," "goal," "objective," "predict," "potential" or "continue" or negative of these terms or other comparable terminology. All statements made in this prospectus other than statements of historical fact are statements that could be deemed forward-looking statements, including without limitation statements about our business plan, our plan of operations and our need to obtain future financing. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks in the section entitled "**Risk Factors**" and the risks set out below, any of which may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks include, by way of example and not in limitation, risks related to:

- Our ability to continue as a going concern;
- Our ability to obtain financing necessary to operate our business;
- Our limited operating history;

• The results of our research and development activities, including uncertainties relating to the preclinical and clinical testing of our product candidates;

- The early stage of our primary product candidate presently under development;
- Our ability to develop, obtain required approvals for and commercialize our product candidates;

- Our ability to recruit and retain qualified personnel;
- Our ability to manage any future growth we may experience;
- Our ability to obtain and maintain protection of our intellectual property;

• Our dependence on third party manufacturers, suppliers, research organizations, academic institutions, testing laboratories and other potential collaborators;

• The size and growth of the potential markets for any of our approved product candidates, and the rate and degree of market acceptance of any of our approved product candidates;

- Our ability to successfully complete potential acquisitions and collaborative arrangements;
 - Competition in our industry;
 - General economic and business conditions; and
 - Other factors discussed under the section entitled “**Risk Factors**”.

New risks emerge in our rapidly-changing industry from time to time. As a result, it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business. If any such risks or uncertainties materialize or such assumptions prove incorrect, our results could differ materially from those expressed or implied by such forward-looking statements and assumptions. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity or performance. These forward-looking statements speak only as of the date of this prospectus. Except as required by applicable law, we do not intend to update any of these forward-looking statements.

SELLING SECURITYHOLDERS

This prospectus covers the resale from time to time by the selling securityholders identified in the table below of up to an aggregate of 28,781,508 shares of our Common Stock that were either previously issued or are issuable upon the exercise of our Series D Warrants. The shares of Common Stock being offered by the selling securityholders were issued in, or issuable upon the exercise of Series D Warrants issued in, the Closings conducted for the 2015 Private Placement Financing, and consist of (i) 14,390,754 previously issued shares; and (ii) 14,390,754 shares that may be issuable upon exercise of our Series D Warrants. For additional information regarding the issuance of the shares of Common Stock and the Series D Warrants, see the description under “**Summary—2015 Private Placement Financing**” elsewhere in this prospectus.

We are registering the shares of Common Stock hereby pursuant to the terms of the registration rights agreement (the “**2015 Registration Rights Agreement**”) among us and the investors in 2015 Private Placement Financing in order to permit the selling securityholders identified in the table below to offer the shares for resale from time to time. Because the shares of Common Stock issuable upon the exercise of our Series D Warrants are subject to adjustments if our shares of Common Stock are subdivided or combined (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise) and our Series D Warrants permit, in certain circumstances, the “cashless” exercise thereof, the number of shares that will actually be issuable upon any exercise thereof may be more or less than the number of shares being offered by this prospectus.

The table below (i) lists the selling securityholders and other information regarding the beneficial ownership (except with respect to the totals in Column 2, as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of our Common Stock by each of the selling securityholders (including securities issued in transactions unrelated to the 2015 Private Placement Financing, if any); (ii) has been prepared based upon information furnished to us by the selling securityholders; and, (iii) to our knowledge, is accurate as of the date of this prospectus. The selling securityholders may sell all, some or none of their shares in this offering. See the disclosure under the heading “**Plan of Distribution**” elsewhere in this prospectus. The selling securityholders identified in the table below may have sold, transferred or otherwise disposed of some or all of their shares since the date of this prospectus in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the selling securityholders may change from time to time and, if necessary, we will amend or supplement this prospectus accordingly and as required.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Name of Selling Securityholder	Number of Shares of Common Stock Issued and Issuable (1)	Number of Shares of Common Stock Beneficially Owned Prior to	Maximum Number of Shares of Common Stock to be Sold Pursuant to this	Number of Shares of Common Stock Beneficially Owned After	Percentage of Shares of Common Stock Beneficially Owned After This

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		this Offering (2)	Prospectus (3)	This Offering (4)	Offering (5)	
Drake Partners Equity, LLC (6)	454,546	454,546	454,546	0	0.00	%
David Cornett (7)	427,274	427,274	227,274	200,000	0.18	%
Keyes Sulat Revocable Trust (8)	1,182,369	1,182,369	909,092	273,277	0.25	%
Stephanie Plent (9)	746,714	746,714	454,546	292,168	0.27	%
Ende Family Trust (10)	700,000	700,000	500,000	200,000	0.18	%
Condorcet UK LP (11)	2,272,728	2,272,728	2,272,728	0	0.00	%
Scott B and Lucinda S Flaherty (12)	550,000	550,000	500,000	50,000	0.05	%
Anson Investments Master Fund LP (13)	5,600,277	5,300,320	3,200,000	2,400,277	2.15	%
Lorraine A. Malanga (14)	227,274	227,274	227,274	0	0.00	%
Jonathan J. Galli (15)	700,000	700,000	700,000	0	0.00	%
Rocco F. and Jennifer DiFilippo (16)	227,270	227,270	227,270	0	0.00	%
Popham Management, LLC (17)	909,092	909,092	909,092	0	0.00	%
Karen and Ronald Bryan Woodard (18)	227,274	227,274	227,274	0	0.00	%
Steve Lahiji (19)	300,000	300,000	300,000	0	0.00	%
Condorcet, LP (20)	2,272,728	2,272,728	2,272,728	0	0.00	%

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Name of Selling Securityholder	Number of Shares of Common Stock Issued and Issuable (1)	Number of Shares of Common Stock Beneficially Owned Prior to this Offering (2)	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus (3)	Number of Shares of Common Stock Beneficially Owned After This Offering (4)	Percentage of Shares of Common Stock Beneficially Owned After This Offering (5)
Charles and Lisa J. Cuning (21)	400,000	400,000	400,000	0	0.00 %
James M. McKeone (22)	909,092	909,092	909,092	0	0.00 %
Armor Securities LLC (23)	908,774	908,774	908,774	0	0.00 %
Michael A. Parker (24)	11,407,390	6,407,390	10,000,000	1,407,390	1.24 %
Intracoastal Capital, LLC (25)	3,737,418	3,737,418	3,181,818	555,600	0.50 %
Total	34,160,220	28,860,263	28,781,508	5,378,712	4.83 %

- Reflects the total number of shares of Common Stock held or issuable to each selling securityholder, including (a) all remaining securities issued in the 2015 Private Placement Financing, in each case without regard to ownership limitations on the exercise of the Series D Warrants as described in footnote (2) below; (b) in the case of Anson and Intracoastal, (i) all shares of Common Stock underlying the remaining Series A Warrants issued in the 2014 Private Placement Financing held by such selling securityholder, none of which are being registered in the registration statement of which this prospectus forms a part and in each case without regard to ownership limitations on the exercise of the Series A Warrants as described in footnote (2) below; (ii) all shares of Common Stock underlying the Convertible Notes issued in the Notes Offering, none of which are being registered in the registration statement of which this prospectus forms a part and in each case without regard to ownership limitations on the conversion of such Convertible Notes as described in footnote (2) below and assuming that the outstanding principal on the Convertible Notes and the accrued interest thereunder is converted on March 13, 2016 into shares of our Common Stock at the conversion rate in effect as of the date of this prospectus; and (iii) all remaining Inducement Shares held by such selling securityholders, none of which are being registered in the registration statement of which this prospectus forms a part; and (c) all other securities issued in transactions unrelated to the 2015 Private Placement Financing, the 2014 Private Placement Financing, or Notes Offering, if any, none of which are being registered in the registration statement of which this prospectus forms a part and in each case without regard to any ownership limitations upon the exercise or conversion of such securities.
- (2) Certain of the Series D Warrants issued in the 2015 Private Placement Financing and all the Series A Warrants issued in the 2014 Private Placement Financing provide that a selling securityholder may not exercise such warrants to the extent (but only to the extent) that the exercise thereof would result in the selling securityholder or any of its affiliates beneficially owning more than 4.9% of our Common Stock after giving effect to such exercise; *provided, however*, that in the case of any Series D Warrant with an ownership limitation, the holder may waive such ownership limitation, in which case such waiver will become effective sixty-one (61) days after the holder's delivery of such waiver notice. Similarly, the Convertible Notes issued in the Notes Offering provide that the holder may not convert a Convertible Note to the extent (but only to the extent) that the conversion thereof would result in the holder or any of its affiliates beneficially owning more than 4.99% of our currently outstanding Common Stock (which may be increased to 9.99% at the holder's discretion). As a result, the number of shares of

Common Stock reflected in this column as beneficially owned by each selling securityholder includes, to the extent applicable, (a) the shares of Common Stock that were issued in the Closings conducted for the 2015 Private Placement Financing held by such selling securityholder and/or issuable upon exercise of the Series D Warrants held by such selling securityholder which, in the case of any Series D Warrant with an ownership limitation that has not been previously waived, is limited to the number of shares of Common Stock that such selling securityholder has the right to acquire without it or any of its affiliates beneficially owning more than 4.9% of our currently outstanding Common Stock, based on 108,169,804 outstanding shares of our Common Stock as of October 15, 2015; (b) the remaining shares of Common Stock held by such selling securityholder that were issued upon the closing of the 2014 Private Placement Financing and/or acquired upon the exercise of a 2014 Warrant; (c) the number of shares of Common Stock underlying the Series A Warrants held by such selling securityholder that such selling securityholder has the right to acquire without it or any of its affiliates beneficially owning more than 4.9% of our currently outstanding Common Stock, based on 108,169,804 outstanding shares of our Common Stock as of October 15, 2015; (d) the shares of Common Stock underlying our Convertible Notes that such selling securityholder has the right to acquire without it or any of its affiliates beneficially owning more than 4.99% of our currently outstanding Common Stock (which may be increased to 9.99% at the holder's discretion), based on 108,169,804 outstanding shares of our Common Stock as of October 15, 2015 and assuming that the outstanding principal on the Convertible Notes and the accrued interest thereunder is converted on March 13, 2016 into shares of our Common Stock at the conversion rate in effect as of the date of this prospectus; and (e) shares of our Common Stock beneficially owned by such selling securityholder that were acquired in transactions unrelated to the 2015 Private Placement Financing, the 2014 Private Placement Financing, or Notes Offering including, but not limited to, the Inducement Shares.

(3) For each selling securityholder, the totals reported in this column reflect the total number of shares of Common Stock registered for resale under the registration statement of which this prospectus is a part including (a) the shares of Common Stock held by such selling securityholder that were issued in connection with the Closings conducted for the 2015 Private Placement Financing and/or, to the extent applicable, acquired upon the exercise of the Series D Warrants; and (b) shares of Common Stock issuable upon exercise of the Series D Warrants held by such selling securityholder, in each case without taking into account the ownership limitations set forth in the Series D Warrants as described in footnote (2).

(4) For each selling securityholder and to the extent applicable, the totals reported in this column reflect the ownership limitations set forth in the Convertible Notes and Series A Warrants described in footnote (2), and assume that (a) all of the shares of Common Stock to be registered by the registration statement of which this prospectus is a part, including the shares of Common Stock held by such selling securityholder that were issued in connection with the closing of the 2015 Private Placement Financing and the shares of Common Stock issuable upon exercise of the Series D Warrants held by such selling securityholder (in each case without taking into account the ownership limitations set forth in certain of the Series D Warrants as described in footnote (2)), are sold in this offering; (b) the outstanding principal on the Convertible Notes and the accrued interest thereunder is converted, on March 13, 2016, into shares of our Common Stock at the conversion rate in effect as of the date of this prospectus; (c) the selling securityholders do not (i) sell any of the securities that have been issued to them in transactions unrelated to the 2015 Private Placement Financing (including, but not limited to, the 2014 Private Placement Financing and Notes Offering) and included in Column 2; and (ii) acquire additional shares of our Common Stock after the date of this prospectus and prior to completion of this offering.

(5) Percentage ownership for each selling securityholder is determined in accordance with Section 13(d) of the Exchange Act and is based on 108,169,804 outstanding shares of our Common Stock as of October 15, 2015, and assumes that all shares underlying such selling securityholder's Series D Warrants that are being offered by such selling securityholder by this prospectus have been issued and are outstanding.

As the managing partner of Drake Partners Equity, LLC (“**Drake**”), Laurence M. Hicks has voting and dispositive power over the securities held by Drake, which may be deemed to have beneficial ownership of the following: (i) 227,273 shares of Common Stock issued to Drake in connection with the 2015 Private Placement Financing; and (6) (ii) 227,273 shares of Common Stock issuable upon exercise of Series D Warrants issued to Drake in connection with the 2015 Private Placement Financing. Mr. Drake disclaims beneficial ownership of the securities held by Drake that are covered hereunder except to the extent of his pecuniary interest therein.

Mr. Cornett may be deemed to have beneficial ownership of the following: (i) 113,637 shares of Common Stock issued to Mr. Cornett in connection with the 2015 Private Placement Financing; (ii) 113,637 shares of Common (7) Stock issuable upon exercise of Series D Warrants issued to Mr. Cornett in connection with the 2015 Private Placement Financing; and (iii) 200,000 shares of Common Stock acquired by Mr. Cornett in transactions unrelated to the 2015 Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part.

James R. Sulat is a member of the Company’s Board of Directors and a co-trustee of the Trust, of which members of Mr. Sulat’s immediate family are beneficiaries. As co-trustee, Mr. Sulat has shared voting and dispositive power over the securities held by the Trust, which may be deemed to have beneficial ownership of the following: (i) 454,546 shares of Common Stock issued to the Trust in connection with the 2015 Private Placement Financing; (ii) (8) 454,546 shares of Common Stock issuable upon exercise of Series D Warrants issued to Trust in connection with the 2015 Private Placement Financing; and (iii) 273,277 shares of Common Stock acquired by the Trust upon the conversion of the \$75,000 convertible promissory note that it purchased from the Company on June 19, 2013 upon the consummation of the Merger, none of which are being registered in the registration statement of which this prospectus forms a part. Mr. Sulat disclaims beneficial ownership of the securities held by the Trust that are covered hereunder except to the extent of his pecuniary interest therein.

The information presented for the Trust in this table excludes (a) a stock option award exercisable for 30,000 shares of Common Stock at an exercise price of \$0.37 granted to Mr. Sulat on June 18, 2013 for services rendered as a consultant to the Company; and (b) a stock option award exercisable for 200,000 shares of Common Stock at an exercise price of \$0.27 granted to Mr. Sulat on August 19, 2015 upon his appointment to the Board of Directors.

Dr. Plent may be deemed to have beneficial ownership of the following: (i) 227,273 shares of Common Stock issued to Dr. Plent in connection with the 2015 Private Placement Financing; (ii) 227,273 shares of Common (9) Stock issuable upon exercise of Series D Warrants issued to Dr. Plent in connection with the 2015 Private Placement Financing; and (iii) 192,168 shares of Common Stock and a stock option exercisable for 100,000 shares of Common Stock acquired by Dr. Plent in transactions unrelated to the 2015 Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part.

(10) Eric J. Ende is a co-trustee of the Ende Family Trust. As co-trustee, Mr. Ende has shared voting and dispositive power over the securities held by the Ende Family Trust, which may be deemed to have beneficial ownership of the following: (i) 250,000 shares of Common Stock issued to the Ende Family Trust in connection with the 2015

Private Placement Financing; (ii) 250,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Ende Family Trust in connection with the 2015 Private Placement Financing; and (iii) 200,000 shares of Common Stock acquired by Ende Family Trust in transactions unrelated to the 2015 Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part. Mr. Ende disclaims beneficial ownership of the securities held by the Ende Family Trust that are covered hereunder except to the extent of his pecuniary interest therein.

Jonathan and Susan Symonds are the joint owners of Condorcet UK LP. As joint owners, Mr. and Ms. Symonds have shared voting and dispositive power over the securities held by Condorcet UK LP, which may be deemed to have beneficial ownership of the following: (i) 1,136,364 shares of Common Stock issued to Condorcet UK LP in connection with the 2015 Private Placement Financing; and (ii) 1,136,364 shares of Common Stock issuable upon exercise of Series D Warrants issued to Condorcet UK LP in connection with the 2015 Private Placement Financing. Mr. and Ms. Symonds disclaim beneficial ownership of the securities held by Condorcet UK LP that are covered hereunder except to the extent of their pecuniary interest therein.

Mr. Flaherty and Ms. Flaherty may be deemed to have beneficial ownership of the following: (i) 250,000 shares of Common Stock issued to Mr. Flaherty and Ms. Flaherty in connection with the 2015 Private Placement Financing; (ii) 250,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. Flaherty and Ms. Flaherty in connection with the 2015 Private Placement Financing; and (iii) a stock option exercisable for 50,000 shares of Common Stock acquired by Mr. Flaherty and Ms. Flaherty in transactions unrelated to the 2015 Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part.

M5V Advisors Inc. and Frigate Ventures LP (“**M5V**” and “**Frigate**”, respectively), the Co-Investment Advisers of Anson, have voting and dispositive power over the securities held by Anson. Bruce Winson is the managing member of Admiralty Advisors LLC, which is the general partner of Frigate. Moez Kassam and Adam Spears are directors of M5V. Mr. Winson, Mr. Kassam and Mr. Spears each disclaim beneficial ownership of the securities held by Anson that are covered hereunder except to the extent of their pecuniary interest therein.

Anson may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of 5,300,320 shares of Common Stock, which consists of the following: (i) 1,600,000 shares of Common Stock issued to Anson in connection with the 2015 Private Placement Financing; (ii) 100,000 Inducement Shares issued to Anson, none of which are being registered in the registration statement of which this prospectus forms a part; (iii) 1,600,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Anson in connection with the 2015 Private Placement Financing; (iv) a Series A Warrant acquired in the 2014 Private Placement Financing exercisable for 1,000,000 shares of Common Stock, none of which are being registered in the registration statement of which this prospectus forms a part; (v) 390,666 shares of Common Stock issued to Anson upon the partial conversion of the outstanding principal on Anson’s Convertible Note, none of which are being registered in the registration statement of which this prospectus forms a part; and (vi) assuming that the remaining principal on the Convertible Note and the accrued interest thereunder is converted on March 13, 2016 into shares of our Common Stock at the conversion rate in effect as of the date of this prospectus, 609,654 shares of Common Stock issuable upon the conversion of the Convertible Note, none of which are being registered in the registration statement of which this prospectus forms a part. The foregoing excludes 299,957 shares of our Common Stock issuable upon conversion of the Convertible Note held by Anson because the Convertible Note contains ownership limitations as described in footnote (2), under which the holder thereof does not have the right to convert the Convertible Note to the extent (but only to the extent) that such conversion would result in beneficial ownership by the holder thereof or any of its affiliates of more than 4.99% of our Common Stock (which may be increased to 9.99% at the holder’s discretion). Without such ownership

limitations, Anson would be deemed to have beneficial ownership of 5,600,277 shares of our Common Stock..

(14) Ms. Malanga may be deemed to have beneficial ownership of the following: (i) 113,637 shares of Common Stock issued to Ms. Malanga in connection with the 2015 Private Placement Financing; and (ii) 113,637 shares of Common Stock issuable upon exercise of Series D Warrants issued to Ms. Malanga in connection with the 2015 Private Placement Financing.

(15) Mr. Galli may be deemed to have beneficial ownership of the following: (i) 350,000 shares of Common Stock issued to Mr. Galli in connection with the 2015 Private Placement Financing; and (ii) 350,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. Galli in connection with the 2015 Private Placement Financing.

(16) Mr. and Ms. DiFilippo may be deemed to have beneficial ownership of the following: (i) 113,635 shares of Common Stock issued to Mr. and Ms. DiFilippo in connection with the 2015 Private Placement Financing; and (ii) 113,635 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. and Ms. DiFilippo in connection with the 2015 Private Placement Financing.

(17) As the manager of Popham Management, LLC (“**Popham**”), Jerry K. Popham has voting and dispositive power over the securities held by Popham, which may be deemed to have beneficial ownership of the following: (i) 454,546 shares of Common Stock issued to Popham in connection with the 2015 Private Placement Financing; and (ii) 454,546 shares of Common Stock issuable upon exercise of Series D Warrants issued to Popham in connection with the 2015 Private Placement Financing. Mr. Popham disclaims beneficial ownership of the securities held by Popham that are covered hereunder except to the extent of his pecuniary interest therein.

(18) Mr. and Ms. Woodard may be deemed to have beneficial ownership of the following: (i) 113,637 shares of Common Stock issued to Mr. and Ms. Woodard in connection with the 2015 Private Placement Financing; and (ii) 113,637 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. and Ms. Woodard in connection with the 2015 Private Placement Financing.

(19) Mr. Lahiji may be deemed to have beneficial ownership of the following: (i) 150,000 shares of Common Stock issued to Mr. Lahiji in connection with the 2015 Private Placement Financing; and (ii) 150,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. Lahiji in connection with the 2015 Private Placement Financing.

(20) Shumeet Banerji is the general partner of Condorcet LP. As the general partner, Mr. Banerji has voting and dispositive power over the securities held by Condorcet LP, which may be deemed to have beneficial ownership of the following: (i) 1,136,364 shares of Common Stock issued to Condorcet LP in connection with the 2015 Private Placement Financing; and (ii) 1,136,364 shares of Common Stock issuable upon exercise of Series D Warrants issued to Condorcet LP in connection with the 2015 Private Placement Financing. Mr. Banerji disclaims beneficial ownership of the securities held by Condorcet LP that are covered hereunder except to the extent of his pecuniary interest therein.

(21) Mr. and Ms. Cunning may be deemed to have beneficial ownership of the following: (i) 200,000 shares of Common Stock issued to Mr. and Ms. Cunning in connection with the 2015 Private Placement Financing; and (ii) 200,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. and Ms. Cunning in connection with the 2015 Private Placement Financing.

(22) Mr. McKeone may be deemed to have beneficial ownership of the following: (i) 454,546 shares of Common Stock issued to Mr. McKeone in connection with the 2015 Private Placement Financing; and (ii) 454,546 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. McKeone in connection with the 2015 Private Placement Financing.

(23) As the manager Armor Securities LLC (“**Armor**”), Kazimierz Malik has voting and dispositive power over the securities held by Armor, which may be deemed to have beneficial ownership of the following: (i) 454,387 shares of Common Stock issued to Armor in connection with the 2015 Private Placement Financing; and (ii) 454,387 shares of Common Stock issuable upon exercise of Series D Warrants issued to Armor in connection with the 2015 Private Placement Financing. Mr. Malik disclaims beneficial ownership of the securities held by Armor that are covered hereunder except to the extent of his pecuniary interest therein.

(24) Mr. Parker may be deemed to have beneficial ownership of the following: (i) 5,000,000 shares of Common Stock issued to Mr. Parker in connection with the 2015 Private Placement Financing; and (ii) 1,407,390 shares of Common Stock acquired by Mr. Parker in transactions unrelated to the 2015 Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part. The information presented for Mr. Parker in Column 3 of this table excludes 5,000,000 shares of Common Stock issuable upon exercise of Series D Warrants issued to Mr. Parker in connection with the 2015 Private Placement Financing because such warrants contain ownership limitations pursuant to which the holder is prohibited from exercising such warrants to the extent (but only to the extent) that the exercise thereof would result in the holder or any of its affiliates beneficially owning more than 4.9% of our Common Stock after giving effect to such exercise; *provided, however*, that the holder may waive such ownership limitation, in which case such waiver will become effective sixty-one (61) days after the holder’s delivery of such waiver notice. As of the date of this prospectus, Mr. Parker has not waived such limitation.

(25) Mitchell P. Kopin (“**Mr. Kopin**”) and Daniel B. Asher (“**Mr. Asher**”), each of whom are managers of Intracoastal, have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of the securities reported herein that are held by Intracoastal.

Cranshire Capital Advisors, LLC (“**CCA**”) is the investment manager of Cranshire Capital Master Fund, Ltd. (“**Cranshire Master Fund**”), and consequently has voting control and investment discretion over the securities held by Cranshire Master Fund. Mr. Kopin, the president, the sole member and the sole member of the Board of Managers of CCA, has voting control over CCA. As a result, each of Mr. Kopin and CCA may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of the securities held by Cranshire Master Fund.

Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of 3,737,418 shares of Common Stock, which consists of (i) 1,590,909 shares of Common Stock issued to Intracoastal in connection with the 2015 Private Placement Financing; (ii) 40,000 Inducement Shares issued to Intracoastal, none of which are being registered in the registration statement of which this prospectus forms a part; (iii) 1,590,909 shares of Common Stock issuable upon exercise of Series D Warrants issued to Intracoastal in connection with the 2015 Private Placement Financing; (iv) assuming that the remaining principal on the Convertible Note assigned by Equitec Specialists, LLC (“**Equitec**”), an investor in the 2014 Private Placement Financing and an affiliate of Intracoastal, to Intracoastal in May 2015 (the “**Intracoastal Convertible Debenture**”), and the accrued interest thereunder is converted on March 13, 2016 into shares of our Common Stock at the conversion rate in effect as of the date of this prospectus, 465,600 shares of Common Stock issuable upon the conversion of the Intracoastal Convertible Debenture, none of which are being registered in the registration statement of which this prospectus forms a part; and (v) 50,000 shares of Common Stock issuable upon exercise of Series A Warrants assigned to Intracoastal in May 2015 by Equitec, none of which are being registered in the registration statement of which this prospectus forms a part.

Mr. Asher, who is a manager of Intracoastal, is also a control person of a broker-dealer. As a result of such common control, Intracoastal may be deemed to be an affiliate of a broker-dealer. Intracoastal acquired the shares of Common Stock being registered hereunder in the ordinary course of business, and at the time of the acquisition of the shares of Common Stock and Series D Warrants described herein, Intracoastal did not have any arrangements or understandings with any person to distribute such securities.

CCA may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of 360,000 shares of Common Stock, which consists of (i) 160,000 Inducement Shares issued to Cranshire Master Fund, none of which are being registered in the registration statement of which this prospectus forms a part; and (ii) 200,000 shares of Common Stock issuable under the Series A Warrant issued to Cranshire Master Fund in connection with the Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part.

As a result of the foregoing, Mr. Kopin may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of 4,097,418 shares of Common Stock, which consists of, which consists of (i) 1,590,909 shares of Common Stock issued to Intracoastal in connection with the 2015 Private Placement Financing; (ii) 40,000 Inducement Shares issued to Intracoastal, none of which are being registered in the registration statement of which this prospectus forms a part; (iii) 160,000 Inducement Shares issued to Cranshire Master Fund, none of which are being registered in the registration statement of which this prospectus forms a part; (iv) 1,590,909 shares of Common Stock issuable upon exercise of Series D Warrants issued to Intracoastal in connection with the 2015 Private Placement Financing; (v) 50,000 shares of Common Stock issuable upon exercise of Series A Warrants assigned to Intracoastal in May 2015 by Equitec, none of which are being registered in the registration statement of which this prospectus forms a part; (vi) 200,000 shares of Common Stock issuable under the Series A Warrant issued to Cranshire Master Fund in connection with the Private Placement Financing, none of which are being registered in the registration statement of which this prospectus forms a part; and (vii) assuming that the remaining principal on the Intracoastal Convertible Debenture and the accrued interest thereunder is converted on March 13, 2016 into shares of our Common Stock at the conversion rate in effect as of the date of this prospectus, 465,600 shares of Common Stock issuable upon the conversion of the Intracoastal Convertible Debenture, none of which are being registered in the registration statement of which this prospectus forms a part.

Except for the ownership of the Common Stock and Series D Warrants issued in the 2015 Private Placement Financing as reflected in the table above and as otherwise described in this “Selling Securityholder” section below, we have not made, and are not required to make, any potential payments regarding the 2015 Private Placement Financing to any selling securityholder, any affiliate of a selling securityholder, or any person with whom any selling securityholder has a contractual relationship, other than as described below. Additionally, none of the selling securityholders holds any of our securities, other than the Common Stock and/or Series A Warrants held by Anson and Intracoastal that were originally issued in the 2014 Private Placement Financing, that have been registered under the Securities Act or that are entitled to registration rights thereunder. We have also been advised that none of the selling securityholders is a broker-dealer or an affiliate of a broker-dealer, other than (a) Mr. Asher, who is a manager of Intracoastal and also a control person of a broker-dealer; (b) Mr. Jonathan J. Galli, who is employed by Credit Suisse Securities (USA) LLC as a broker; (c) Ms. Karen Woodard, who is employed by Credit Suisse; and (d) Mr. James M. McKeone, who is employed by FAS Corp. as a broker.

The holders of the Series D Warrants issued in the 2015 Private Placement Financing have ongoing rights to exercise those Series D Warrants. We have described the material terms of the Series D Warrants elsewhere in this prospectus. In addition, the participants in the 2015 Private Placement Financing have ongoing registration rights related to the securities issued therein pursuant to the terms of the 2015 Registration Rights Agreement, which are described in

more detail elsewhere in this prospectus.

We may be required to make certain payments to the investors in the 2015 Private Placement Financing under certain circumstances pursuant to the terms of the 2015 Registration Rights Agreement. These potential payments include: (i) potential partial damages for failure to register the Common Stock issued or issuable upon exercise of Series D Warrants; and (ii) payments in respect of claims for which we provide indemnification or contribution. We intend to comply with the requirements of the 2015 Registration Rights Agreement and do not currently expect to make any such payments; however, it is possible that such payments may be required.

DETERMINATION OF OFFERING PRICE

The selling securityholders will determine at what price they may sell the shares of Common Stock offered by this prospectus, and such sales may be made at prevailing market prices, at prices related to the prevailing market price or at privately negotiated prices.

PLAN OF DISTRIBUTION

We are registering (i) the shares of Common Stock issued; and (ii) the shares of Common Stock issuable upon exercise of the Series D Warrants, in each case, originally issued in connection with the 2015 Private Placement Financing to permit the resale of these shares of Common Stock by the selling securityholders from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling securityholders of the shares of Common Stock. We will bear all fees and expenses incident to our obligation to register the shares of Common Stock.

The selling securityholders may sell all or a portion of the shares of Common Stock held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of Common Stock are sold through underwriters or broker-dealers, the selling securityholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of Common Stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;

broker-dealers may agree with a selling securityholder to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and
any other method permitted pursuant to applicable law.

The selling securityholders may also sell shares of Common Stock under Rule 144 promulgated under the Securities Act, if available, rather than under this prospectus. In addition, the selling securityholders may transfer the shares of Common Stock by other means not described in this prospectus. If the selling securityholders effect such transactions by selling shares of Common Stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling securityholders or commissions from purchasers of the shares of Common Stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved but, except as set forth in a supplement to this prospectus to the extent required, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with FINRA Rule 5110).

In connection with sales of the shares of Common Stock or otherwise, the selling securityholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of Common Stock in the course of hedging in positions they assume. The selling securityholders may also sell shares of Common Stock short and deliver shares of Common Stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling securityholders may also loan or pledge shares of Common Stock to broker-dealers that in turn may sell such shares.

The selling securityholders may pledge or grant a security interest in some or all of the Series D Warrants or shares of Common Stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling securityholders to include the pledgee, transferee or other successors in interest as selling securityholders under this prospectus. The selling securityholders also may transfer and donate the shares of Common Stock in other circumstances as permitted by their respective Subscription Agreement, the 2015 Registration Rights Agreement, the Series D Warrants and all applicable law, in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling securityholders and any broker-dealer participating in the distribution of the shares of Common Stock may be deemed to be “underwriters” within the meaning of the Securities Act. In such event, any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. Selling securityholders who are deemed to be “underwriters” under the Securities Act (if any) will be subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act.

Each selling securityholder has informed us that it is not a registered broker-dealer and does not have any written or oral agreement or understanding, directly or indirectly, with any person to engage in a distribution of the Common Stock. Upon us being notified in writing by a selling securityholder that any material arrangement has been entered into with a broker-dealer for the distribution of Common Stock, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of Common Stock being distributed and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling securityholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the shares of Common Stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of Common Stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

Each selling securityholder may sell all, some or none of the shares of Common Stock registered pursuant to the registration statement of which this prospectus forms a part. If sold under the registration statement of which this prospectus forms a part, the shares of Common Stock registered hereunder will be freely tradable in the hands of persons other than our affiliates that acquire such shares.

The selling securityholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of Common Stock by the selling securityholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of Common Stock to engage in market-making activities with respect to the shares of Common Stock. All of the foregoing may affect the marketability of the shares of Common Stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Common Stock.

We have agreed to keep this prospectus effective until the earlier of (i) the date on which all of the securities registered under the registration statement of which this prospectus is a part have been sold; and (ii) the twelve month anniversary of the date the registration statement of which this prospectus is a part is declared effective by the SEC. We have also agreed to pay all expenses of the registration of the shares of Common Stock pursuant to the 2015 Registration Rights Agreement, estimated to be \$150,000 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; *provided, however*, a selling securityholder will pay all underwriting discounts and selling commissions, if any.

We have further agreed to indemnify or provide contribution to the selling securityholders with respect to certain liabilities, including some liabilities under the Securities Act, in accordance with the 2015 Registration Rights Agreement. Each selling securityholder, severally and not jointly, has agreed to indemnify or provide contribution to us with respect to certain civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling securityholder specifically for use in this prospectus, in accordance with the Registration Rights Agreement.

USE OF PROCEEDS

We will not receive proceeds from the sale of Common Stock under this prospectus. We will, however, receive approximately \$3,597,689 from the selling securityholders if they exercise all of the Series D Warrants on a cash basis (assuming, in each case, no adjustments are made to the exercise price or number of shares issuable upon exercise of the Series D Warrants), which we expect we would use primarily for working capital purposes. We also expect we may use a portion of any such proceeds we may receive to satisfy our indebtedness to MLSC and, as applicable, our repayment obligations under the Convertible Notes.

Pursuant to the MLSC Loan Agreement, we must repay \$1 million plus any unpaid accrued interest, accruing at a rate of 10% per annum, on the earlier of (a) the completion of a sale of substantially all of our assets, a change-of-control transaction or one or more financing transactions in which we receive net proceeds of \$5,000,000 or more in a 12-month period; (b) the occurrence of an event of default by us under the MLSC Loan Agreement; or (c) September 30, 2018. Assuming repayment of the principal amount of the MLSC Loan on September 30, 2018, we anticipate paying an aggregate amount of \$610,510 in accrued interest over the term of the MLSC Loan. We obtained the proceeds of the MLSC Loan on October 4, 2013 and have used, and expect to continue to use, such proceeds for working capital purposes. Correspondingly, unless converted on or prior to March 13, 2016 into shares of our Common Stock, we will be obligated to repay the holders of our Convertible Notes an aggregate of \$750,000 in principal and an additional \$60,000 in interest on that date; *provided, however*, that in the event that the repayment of the indebtedness accrued under the Convertible Notes is not permitted under the Subordination Agreements, 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 Subordination Agreements.

The holders of the Series D Warrants may exercise their Series D Warrants at any time at their own discretion, if at all, in accordance with the terms thereof until their expiration, as further described under “**Summary—2015 Private Placement Financing**” and “**Description of Securities**.” Additionally, if there is no effective registration statement registering the resale of the shares of Common Stock underlying any of the Series D Warrants as of certain time periods (as provided in the Series D Warrants), then the Series D Warrant holders may choose to exercise such Series D Warrants on a “cashless exercise” or “net exercise” basis. If they do so, we will not receive any proceeds from the exercise of the Series D Warrants. As a result, we cannot plan on receiving any proceeds from the exercise of any of the Series D Warrants, nor can we plan on any specific uses of any proceeds we may receive beyond the purposes described herein. We have agreed to bear the expenses (other than any underwriting discounts or commissions or agent's commissions) in connection with the registration of the Common Stock being offered hereby by the selling securityholders.

DESCRIPTION OF SECURITIES

Authorized Capital Stock

Effective May 24, 2013, we amended our Articles of Incorporation to increase our authorized Common Stock from 75,000,000 shares to 300,000,000 shares. Other than our Common Stock, we have no other class or series of authorized capital stock.

Also on May 24, 2013, we effected a forward stock split, by way of a stock dividend, of our issued and outstanding shares of Common Stock at a ratio of 11 shares to each one issued and outstanding share. As a result, our outstanding Common Stock increased from 3,960,000 shares to 43,560,000 shares immediately following the forward stock split.

Common Stock Issued and Outstanding; Common Stock Registered Hereby

As of October 15, 2015 there were issued and outstanding 108,169,804 shares of Common Stock. Of our issued and outstanding shares of Common Stock, we are registering under the registration statement, of which this prospectus forms a part, the 14,390,754 shares of Common Stock that were issued in connection with the 2015 Private Placement Financing that concluded on July 2, 2015.

Description of Common Stock

The holders of our Common Stock, par value \$0.001 per share, are entitled to one vote per share on all matters submitted to a vote of our stockholders, including the election of directors. Our articles of incorporation do not provide for cumulative voting in the election of directors, and our amended and restated bylaws provide that directors are elected by a plurality vote of the votes cast and entitled to vote on the election of directors at any meeting for the election of directors at which a quorum is present. Matters other than the election of directors to be voted on by stockholders are generally approved if, at a duly convened stockholder meeting, the number of votes cast in favor of the action exceeds the number of votes cast in opposition to the action, unless a different vote for the action is required by applicable law, our articles of incorporation or our amended and restated bylaws. Applicable Nevada law requires any amendment to our articles of incorporation to be approved by stockholders holding shares entitling them to exercise at least a majority of the voting power of the Company. The holders of our Common Stock will be entitled to cash dividends as may be declared, if any, by our Board of Directors from funds available. Upon liquidation, dissolution or winding up of our Company, the holders of our Common Stock will be entitled to receive pro rata all assets available for distribution to the holders. All rights of our Common Stockholders described in this paragraph could be subject to any preferential voting, liquidation or other rights of any series of preferred stock that we may authorize and issue in the future. Our Common Stock is presently traded on the QB tier of the OTC Marketplace under the trading symbol "ARTH".

Warrants and Options Issued and Outstanding

As of October 15, 2015 there were issued and outstanding:

- The Series D Warrants issued to the investors in the 2015 Private Placement Financing to purchase up to an aggregate of 14,390,754 shares of Common Stock at an exercise price of \$0.25 per share;

- The Series A and Series C Warrants issued to the investors in the 2014 Private Placement Financing to purchase up to an aggregate of 12,750,000 shares of Common Stock which include (i) Series A Warrants to purchase 9,350,000 shares issuable thereunder at an exercise price of \$0.20 per share; and (ii) Series C Warrants to purchase 3,400,000 shares at an exercise price of \$0.20 per share;

- The MLSC Warrant issued to MLSC in connection with the MLSC Loan Agreement to purchase up to 145,985 shares of Common Stock with an exercise price of \$0.274 per share; and

- Options granted to employees, directors and consultants under the 2013 Plan to purchase up to an aggregate of 10,776,504 shares of Common Stock at exercise prices ranging from \$0.17 to \$0.40 per share and with a weighted

average exercise price of \$0.30 per share.

Description of Series D Warrants Whose Underlying Common Stock is Registered Hereby

Each of the investors participating in the 2015 Private Placement Financing was issued a Series D Warrant to purchase up to a number of shares of our Common Stock equal to 100% of the shares of Common Stock purchased by such investor in such financing. The Series D Warrants had an initial exercise price of \$0.25 per share, were exercisable immediately upon their issuance and have a term of exercise equal to five years after their issuance date. The number of shares of our Common Stock into which each of the Series D Warrants is exercisable and the exercise price therefor are subject to adjustment as set forth in the Series D Warrants, including adjustments for stock subdivisions or combinations (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise). In addition, (i) at anytime during the term of the Series D Warrants, we may reduce the then current exercise price to any amount and for any period of time deemed appropriate by our Board; and (ii) certain of the Series D Warrants provide that they shall not be exercisable in the event and to the extent that the exercise thereof would result in the holder of the Series D Warrant or any of its affiliates beneficially owning more than 4.9% of our Common Stock, but such ownership limitation may be waived at the holder's discretion, *provided that* such waiver will not become effective until the 61st day after delivery of such waiver notice. In addition, if there is no effective registration statement registering the resale of the shares of Common Stock underlying the Series D Warrants as of certain time periods (as provided in the Series D Warrants), the Series D Warrant holders may choose to exercise such Series D Warrants on a "cashless exercise" or "net exercise" basis.

On June 30, 2015, the Initial Closing Date, the Series D Warrants had an exercise price lower than the market value of our Common Stock, which closed at \$0.26 on the OTCQB on such date, resulting in an aggregate discount to the market price of our Common Stock of \$139,364. On July 2, 2015, the date of the Second Closing, Series D Warrants had an exercise price higher than the market value of our Common Stock, which closed at \$0.23 on the OTCQB on such date, and therefore did not have any discount to the market price of our Common Stock as of such date. The tables below indicate the total possible discount to the market price of our Common Stock as of June 30, 2015 for the shares of our Common Stock underlying the Series D Warrants issued upon the Initial Closing, as well as similar information for the Series D Warrants issued upon the Second Closing.

Series D Warrants Issued on June 30, 2015

Market price per share of our Common Stock on June 30, 2015, the Initial Closing Date:	\$0.26
Exercise price per share of the Series D Warrants on the Initial Closing Date:	\$0.25
Total possible shares of Common Stock underlying the Series D Warrants issued on the Initial Closing Date:	13,936,367
Aggregate market price of all shares of Common Stock underlying the Series D Warrants issued on the Initial Closing Date, based on the market price of our Common Stock on June 30, 2015:	\$3,623,455
Aggregate exercise price of all shares of Common Stock underlying the Series D Warrants issued on the Initial Closing Date, based on the exercise price on the Initial Closing Date:	\$3,484,092
Total possible discount of the exercise price of the Series D Warrants issued on the Initial Closing Date to the market price of our Common Stock as of June 30, 2015:	\$139,364

Series D Warrants Issued on July 2, 2015

Market price per share of our Common Stock on July 2, 2015, the date of the Second Closing:	\$0.23
Exercise price per share of the Series D Warrants on the date of the Second Closing:	\$0.25
Total possible shares of Common Stock underlying the Series D Warrants issued on the date of the Second Closing:	454,387
Aggregate market price of all shares of Common Stock underlying the Series D Warrants issued on the date of the Second Closing, based on the market price of our Common Stock on July 2, 2015:	\$104,509
Aggregate exercise price of all shares of Common Stock underlying the Series D Warrants issued on the date of the Second Closing, based on the exercise price on the date of the Second Closing:	\$113,597

Description of Series A Warrants and Series C Warrants

Upon the closing of the 2014 Private Placement Financing on February 4, 2014, we issued to each investor therein a Series A Warrant, a Series B Warrant and a Series C Warrant, each to purchase up to a number of shares of our Common Stock equal to 100% of the shares of Common Stock purchased by such investor in the 2014 Private Placement Financing. The Series A Warrants had an initial exercise price of \$0.30 per share, were exercisable immediately upon their issuance and have a term of exercise equal to five years after their issuance date. The Series B Warrants had an initial exercise price of \$0.35 per share, were exercisable immediately upon their issuance and had a term of exercise equal to the shorter of 12 months after their issuance date and six months after the first date on which

the resale of all Registrable Securities (as defined in the Securities Purchase Agreement) is covered by one or more effective registration statements. The Series B Warrants expired on January 3, 2015. The Series C Warrants had an initial exercise price of \$0.40 per share, were exercisable immediately upon their issuance and had an initial term of exercise equal to the shorter of 18 months after their issuance date and nine months after the first date on which the resale of all Registrable Securities (as defined in the Securities Purchase Agreement) is covered by one or more effective registration statements. The Series C warrants were set to expire on April 2, 2015 and, as described later in this document, were amended to expire on July 2, 2016. The number of shares of our Common Stock into which each of the 2014 Warrants is exercisable and the exercise price therefor were subject to adjustment as set forth in the 2014 Warrants, including, without limitation, adjustments in the event of certain subsequent issuances and sales of shares of our Common Stock (or securities convertible or exercisable into shares of our Common Stock) at a price per share lower than the then-effective exercise price of the 2014 Warrants, in which case the per share exercise price of the 2014 Warrants would be adjusted to equal such lower price per share and the number of shares issuable upon exercise of the 2014 Warrants would be adjusted accordingly so that the aggregate exercise price upon full exercise of the 2014 Warrants immediately before and immediately after such per share exercise price adjustment were equal, as well as customary adjustments in the event of stock dividends and splits, subsequent rights offerings and pro rata distributions to our Common Stockholders. The 2014 Warrants also provide that they shall not be exercisable in the event and to the extent that the exercise thereof would result in the holder of the Warrant or any of its affiliates beneficially owning more than 4.9% of our Common Stock.

Following the closing of the 2014 Private Placement Financing, we entered into a series of amendments with Cranshire on December 1, 2014, March 13, 2015, May 30, 2015 and June 22, 2015 to amend the terms of the 2014 Warrants. On December 1, 2014, the 2014 Warrants were amended to (i) reduce the exercise price of the Series B Warrants from \$0.35 to \$0.20; (ii) reduce the exercise price of the Series C Warrants from \$0.40 to \$0.20; and (iii) clarify that each Series of 2014 Warrants may be amended without having to amend all three series of 2014 Warrants. On March 13, 2015 and May 30, 2015, the Series C Warrants were amended to extend their expiration date to 5:00 p.m., New York time, on June 2, 2015, and 5:00 p.m., New York time, on July 2, 2015, respectively. On June 22, 2015, the Series A Warrants and Series C Warrants were amended to remove the anti-dilution provisions contained in the Series A Warrants and Series C Warrants, and in consideration of such amendment, (a) the expiration date of the Series C Warrants was further extended to 5:00 p.m., New York time, on July 2, 2016; and (b) we agreed to issue the holders of the Series A Warrants and Series C Warrants up to an additional 570,000 Inducement Shares. In addition, as a result of the anti-dilution provisions in the Series A Warrants, the exercise price of the Series A Warrants was reduced from \$0.30 to \$0.20 upon the closing of the Note Offering on March 13, 2015.

MLSC Warrants

In connection with and as a condition of the MLSC Loan Agreement, on September 30, 2013, we issued to MLSC the MLSC Warrant to purchase 145,985 shares of our Common Stock at an exercise price of \$0.274 per share. The MLSC Warrant has been issued as partial consideration for the funding provided under the MLSC Loan Agreement and for no separate consideration. The MLSC Warrant is exercisable immediately upon its issuance and expires on the earlier of September 30, 2023 and the completion of a sale of substantially all of our assets or a change-of-control transaction.

Description of Convertible Notes

Upon the closing of the Notes Offering on March 13, 2015, we issued to each of the Convertible Notes Investors a Convertible Note in the principal amount of \$250,000. Subject to the terms and conditions of the Subordination Agreements, the Convertible Notes issued in the Notes Offering become due and payable on March 13, 2016, the Stated Maturity Date, and may not be prepaid. The Convertible Notes bear interest on the unpaid principal balance 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 until either (a) converted into shares of our Common Stock; or (b) the outstanding principal and accrued interest on the Convertible Notes is paid in full by us. Interest on the Convertible Notes becomes due and payable upon their conversion or the Stated Maturity Date and may become due and payable upon the occurrence of an event of default under the Convertible Notes, as defined in the Convertible Notes. The Convertible Notes contain customary events of default, which include, among other things, (i) our failure to pay other indebtedness of \$100,000 or more within the specified cure period for such breach; (ii) the acceleration of the stated maturity of such indebtedness; (iii) our insolvency; and (iv) the receipt of final, non-appealable judgments in the aggregate amount of \$100,000 or more.

At any time prior to the Stated Maturity Date, the holders of the Convertible Notes have the right to convert some or all of such Convertible Notes into the number of shares of our 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; *provided, however*, that in the event that the repayment of the indebtedness accrued under the Convertible Notes is not permitted under the Subordination Agreements, 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 Subordination Agreements. The initial conversion price is \$0.20 per share, and it may be (A) reduced to any amount and for any period of time deemed appropriate by our Board of Directors, or (B) reduced or increased proportionately as a result of stock splits, stock dividends, recapitalizations, reorganizations, and similar transactions. A holder shall not have the right to convert any portion of a Convertible Note, if after giving effect to such conversion, the holder, together with its affiliates collectively, would beneficially own more than 4.99% or 9.99% (at the holder's discretion) of the shares of Common Stock outstanding immediately after giving effect to such conversion.

2015 Registration Rights Agreement

On the Initial Closing Date, we entered into the 2015 Registration Rights Agreement pursuant to which we became obligated, subject to certain conditions, to file with the SEC within 90 days after the closing of the 2015 Private Placement Financing one or more registration statements to register the shares of Common Stock issued in the Closings and the Series D Warrant Shares for resale under the Securities Act. As a result, we are registering for resale under this registration statement an aggregate of 28,781,508 shares of Common Stock, representing the 14,390,754 shares issued at the closing of the 2015 Private Placement and the 14,390,754 shares underlying the Series D Warrants currently held by the selling securityholders. Pursuant to our filing of this registration statement, we are in compliance with such filing obligation under the 2015 Registration Rights Agreement. Our failure to satisfy certain deadlines with respect to this registration statement, including with respect to the effectiveness hereof within five (5) business days after the SEC notifies us that no review of the registration statement will be made or that the SEC has no further comments on the registration statement, and certain other requirements set forth in the 2015 Registration Rights Agreement may require us to pay monetary penalties to the investors in the 2015 Private Placement Financing. Because the Series D Warrants are subject to certain adjustments and permit, in certain circumstances, the “cashless” exercise thereof, the number of shares that will actually be issuable upon any exercise thereof may be more or less than the number of shares being offered by this prospectus. In the event of any such adjustment to the number of shares issuable upon exercise of the Series D Warrants, the provisions of the 2015 Registration Rights Agreement would obligate us to register for resale any additional shares of our Common Stock that may then be issuable upon exercise of the Series D Warrants. Under the 2015 Registration Rights Agreement, subject to exception in certain circumstances, we have agreed to keep this registration statement effective until the earlier of the date on which all shares of Common Stock to be registered hereunder have been sold, and the twelve month anniversary of the date this registration statement is declared effective by the SEC. If there is not an effective registration statement covering the resale of any of the shares issued in or issuable upon exercise of the Series D Warrants issued in the 2015 Private Placement Financing, then the selling securityholders will be entitled to exercise their Series D Warrants on a “cashless exercise” or “net exercise” basis during the period when the shares issuable upon exercise of such Series D Warrants are not so registered.

Transfer Agent

The transfer agent for our Common Stock is Empire Stock Transfer. Our transfer agent’s address is 1859 Whitney Mesa Drive, Henderson, Nevada 89014.

Anti-Takeover Provisions of Nevada State Law

Some features of the Nevada Revised Statutes (“**NRS**”), which are further described below, may have the effect of deterring third parties from making takeover bids for control of us or may be used to hinder or delay a takeover bid.

This would decrease the chance that our stockholders would realize a premium over market price for their shares of Common Stock as a result of a takeover bid.

Acquisition of Controlling Interest

The NRS contain provisions governing acquisition of a controlling interest of a Nevada corporation. These provisions provide generally that any person or entity that acquires a certain percentage of the outstanding voting shares of a Nevada corporation may be denied voting rights with respect to the acquired shares, unless certain criteria are satisfied. Our amended and restated bylaws provide that these provisions will not apply to us or to any existing or future stockholder or stockholders.

Combination with Interested Stockholder

The NRS contain provisions governing combinations of a Nevada corporation that has 200 or more stockholders of record with an “interested stockholder.” These provisions only apply to a Nevada corporation that, at the time the potential acquirer became an interested stockholder, has a class or series of voting shares listed on a national securities exchange, or has a class or series of voting shares traded in an “organized market” and satisfies certain specified public float and stockholder levels. As we do not now meet those requirements, we do not believe that these provisions are currently applicable to us. However, to the extent they become applicable to us in the future, they may have the effect of delaying or making it more difficult to affect a change in control of the Company in the future.

A corporation affected by these provisions may not engage in a combination within two years after the interested stockholder acquires his, her or its shares unless the combination or purchase is approved by the board of directors before the interested stockholder acquired such shares. Generally, if approval is not obtained, then after the expiration of the two-year period, the business combination may be consummated with the approval of the board of directors before the person became an interested stockholder or a majority of the voting power held by disinterested stockholders, or if the consideration to be received per share by disinterested stockholders is at least equal to the highest of:

the highest price per share paid by the interested stockholder within the three years immediately preceding the date of the announcement of the combination or within three years immediately before, or in, the transaction in which he, she or it became an interested stockholder, whichever is higher;

the market value per share on the date of announcement of the combination or the date the person became an interested stockholder, whichever is higher; or

- if higher for the holders of preferred stock, the highest liquidation value of the preferred stock, if any.

Generally, these provisions define an interested stockholder as a person who is the beneficial owner, directly or indirectly of 10% or more of the voting power of the outstanding voting shares of a corporation, and define combination to include any merger or consolidation with an interested stockholder, or any sale, lease, exchange, mortgage, pledge, transfer or other disposition, in one transaction or a series of transactions with an interested stockholder of assets of the corporation:

having an aggregate market value equal to 5% or more of the aggregate market value of the assets of the corporation;

having an aggregate market value equal to 5% or more of the aggregate market value of all outstanding shares of the corporation; or

- representing 10% or more of the earning power or net income of the corporation.

Liability and Indemnification of Directors and Officers

The NRS empower us to indemnify our directors and officers against expenses relating to certain actions, suits or proceedings as provided for therein. In order for such indemnification to be available, the applicable director or officer must not have acted in a manner that constituted a breach of his or her fiduciary duties and involved intentional misconduct, fraud or a knowing violation of law, or must have acted in good faith and reasonably believed that his or her conduct was in, or not opposed to, our best interests. In the event of a criminal action, the applicable director or officer must not have had reasonable cause to believe his or her conduct was unlawful.

We have not entered into separate indemnification agreements with our directors and officers. Our amended and restated bylaws provide that we shall indemnify any director or officer to the fullest extent authorized by the laws of the State of Nevada. Our amended and restated bylaws further provide that we shall pay the expenses incurred by an officer or director (acting in his capacity as such) in defending any action, suit or proceeding in advance of the final disposition of such action, suit or proceeding, subject to the delivery to us by or on behalf of such director or officer of an undertaking to repay the amount of such expenses if it shall ultimately be determined that he or she is not entitled to be indemnified by us as authorized in our bylaws or otherwise.

The NRS further provide that a corporation may purchase and maintain insurance or make other financial arrangements on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation,

partnership, joint venture, trust or other enterprise for any liability asserted against him and liability and expenses incurred by him in his capacity as a director, officer, employee or agent, or arising out of his status as such, whether or not the corporation has the authority to indemnify him against such liability and expenses. We have secured a directors' and officers' liability insurance policy. We expect that we will continue to maintain such a policy.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

MARKET PRICE OF AND DIVIDENDS ON COMMON STOCK AND RELATED MATTERS

Market Information

Our Common Stock is currently quoted on the OTCQB over-the-counter quotation system. Our Common Stock began quotation on the OTCBB and the OTCQB on June 27, 2013 and since that date has been primarily traded on the OTCQB. There was no trading of our Common Stock on the OTCBB, OTCQB or any other over-the-counter market prior to January 2, 2013. Although our Common Stock is currently quoted on the OTCQB, there is a limited trading market for our Common Stock and there have been few trades in our Common Stock to date. Because our Common Stock is thinly traded, any reported sale prices may not be a true market-based valuation of our Common Stock.

The table below sets forth reported high and low closing bid quotations for our Common Stock for the fiscal quarters indicated as reported on the OTCQB. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

	High	Low
Fiscal Year Ended September 30, 2013		
First Quarter ended December 31, 2012*	-	-
Second Quarter ended March 31, 2013*	-	-
Third Quarter ended June 30, 2013 #^	\$ 6.00	\$ 0.54
Fourth Quarter ended September 30, 2013	\$ 1.30	\$ 0.34
Fiscal Year Ending September 30, 2014		
First Quarter ended December 31, 2013	\$ 0.32	\$ 0.16
Second Quarter ended March 31, 2014	\$ 0.44	\$ 0.29
Third Quarter ended June 30, 2014	\$ 0.34	\$ 0.20
Fourth Quarter ended September 30, 2014	\$ 0.22	\$ 0.16
Fiscal Year Ending September 30, 2015		
First Quarter ended December 31, 2014	\$ 0.25	\$ 0.16
Second Quarter ended March 31, 2015	\$ 0.24	\$ 0.18
Third Quarter ended June 30, 2015	\$ 0.26	\$ 0.18
Fourth Quarter ended September 30, 2015	\$ 0.39	\$ 0.23

* There was no market for our Common Stock during this period.

There was no market for our Common Stock during portions of this period.

^ The high closing bid quotation of \$6.00 does not give effect to the May 24, 2013 11-for-1 forward stock split.

Dividends

We have never declared or paid any cash dividends or distributions on our capital stock. We currently intend to retain our future earnings, if any, to support operations and to finance expansion and therefore we do not anticipate paying any cash dividends on our Common Stock in the foreseeable future. In addition, under the terms of the MLSC Loan Agreement, we must obtain MLSC's prior consent before declaring or paying any dividends during the term of the MLSC Loan Agreement.

Holders

As of October 15, 2015, there were approximately 100 holders of record of our Common Stock.

MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with our consolidated financial statements and notes thereto included elsewhere in this prospectus. *This discussion and analysis contains* forward looking statements. We make forward-looking statements, as defined by the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995, and in some cases, you can identify these statements by forward-looking words such as “if,” “will,” “may,” “might,” “will likely result,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “project,” “intend,” “goal,” “predict,” “potential” or “continue,” or the negative of these terms and other comparable terminology. These forward-looking statements are based on various underlying assumptions and expectations and are subject to risks, uncertainties and other unknown factors, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business and include risks and uncertainties relating to Arch’s current cash position and its need to raise additional capital in order to be able to continue to fund its operations; the stockholder dilution that may result from future capital raising efforts and the exercise or conversion, as applicable of Arch’s outstanding options, warrants and convertible notes; anti-dilution protection afforded investors in prior financing transactions that may restrict or prohibit Arch’s ability to raise capital on terms favorable to the Company and its current stockholders; Arch’s limited operating history which may make it difficult to evaluate Arch’s business and future viability; Arch’s ability to timely commercialize and generate revenues or profits from our anticipated products; Arch’s ability to achieve the desired regulatory approvals in the United States or elsewhere; Arch’s ability to retain its managerial personnel and to attract additional personnel; the strength of Arch’s intellectual property, the intellectual property of others and any asserted claims of infringement; and other risk factors identified under the caption “**Risk Factors**” in this prospectus and in the documents Arch has filed, or will file with the SEC. We undertake no duty to update any of these forward-looking statements after the date of filing of this prospectus to conform such forward-looking statements to actual results or revised expectations, except as otherwise required by law.

Corporate Overview

Arch Therapeutics, Inc. was incorporated under the laws of the State of Nevada on September 16, 2009 with the name “Almah, Inc.” to pursue the business of distributing automobile spare parts online. Effective June 26, 2013, Arch completed a merger (the “**Merger**”) with Arch Biosurgery, Inc. (formerly known as Arch Therapeutics, Inc.), a Massachusetts corporation (“**ABS**”), and Arch Acquisition Corporation (“**Merger Sub**”), Arch’s wholly owned subsidiary formed for the purpose of the transaction, pursuant to which Merger Sub merged with and into ABS and ABS thereby became the wholly owned subsidiary of Arch. Prior to the completion of the Merger, Arch was a “shell company” under applicable rules of the SEC and had no or nominal assets or operations. As part of the acquisition, Almah management resigned and was replaced with ABS management. Upon its acquisition of ABS, Arch abandoned its prior business plan and changed its operations to the business of a life science medical device company.

For financial reporting purposes, the Merger represented a “reverse merger”. ABS was deemed to be the accounting acquirer in the transaction and the predecessor of Arch. Consequently, the assets, liabilities, accumulated deficit and the historical operations that are reflected in the Company’s unaudited interim consolidated financial statements are those of ABS. All share information has been restated to reflect the effects of the Merger. The Company’s financial information was consolidated with that of ABS after consummation of the Merger on June 26, 2013, and the historical financial statements of the Company before the Merger have been replaced with the historical financial statements of ABS before the Merger in this report.

Business Overview

We are a life science medical device company in the development stage with limited operations to date. We aim to develop products that make surgery and interventional care faster and safer by using a novel approach to stop bleeding (referenced as “hemostatic” or “hemostasis”), control leaking (referenced as “sealant” or “sealing”), and provide other advantages during surgery and trauma care. Our core technology is based on a self-assembling peptide that creates a physical, mechanical barrier, which could be applied to seal organs or wounds that are leaking blood and other fluids. We believe our technology could support an innovative platform of potential products in the field of stasis and barrier applications. Our lead product candidate, AC5 Surgical Hemostatic Device™ (which we sometimes refer to as “**AC5**”) is designed to achieve hemostasis in minimally invasive and open surgical procedures, and we hope to develop other hemostatic or sealant product candidates in the future based on our self-assembling peptide technology platform. Our plan and business model is to develop products that apply that core technology to use with human bodily fluids and connective tissues.

AC5 is designed to be a biocompatible synthetic peptide comprising naturally occurring amino acids. When applied to a wound, AC5 intercalates into the interstices of the connective tissue where it self-assembles into a physical, mechanical structure that provides a barrier to leaking substances, such as blood. AC5 is designed for direct

application as a liquid, which we believe will make it user-friendly and able to conform to irregular wound geometry. Additionally, AC5 is not sticky or glue-like, which we believe will enhance its utility in the setting of minimally invasive and laparoscopic surgeries. Further, AC5 is transparent, which should make it easier for surgeons or other healthcare providers to maintain a clear field of vision during a surgical procedure and prophylactically stop bleeding as it starts, which we call Crystal Clear Surgery™.

We have devoted much of our operations to date to the development of our core technology, including selecting our lead product composition, conducting initial safety and other related tests, generating scale-up, reproducibility and manufacturing and formulation methods, and developing and protecting the intellectual property rights underlying our technology platform. Formulation optimization is an important part of peptide development. AC5 formulation optimization, which is done with extensive collaboration among our team and partners, is focused on optimizing traditional product parameters to target specifications covering performance, physical appearance, stability, and handling characteristics, among others. Arch intends to monitor formulation optimization closely, as success or failure in setting and realizing appropriate specifications may directly impact our anticipated clinical trial and subsequent commercialization timeline.

Our long-term business plan includes the following goals:

- conducting successful biocompatibility studies and, subsequently, clinical trials on AC5;
- expanding, maintaining and protecting of our intellectual property portfolio;
- developing appropriate third party relationships to manufacture, distribute, market and otherwise commercialize AC5;
- obtaining regulatory approval or certification of AC5 in the EU, the U.S., and other jurisdictions as we may determine;
- developing academic, scientific and institutional relationships to collaborate on product research and development; and
- developing additional product candidates in the hemostatic, sealant, and/or other fields.

In furtherance of our long-term business goals, we expect to continue to focus on the following activities during the next twelve months:

- seek additional funding to support the milestones described above and our operations generally;
- work with our large scale manufacturing partners to continue to scale up production of product compliant with current good manufacturing practices (“cGMP”), which activities will be ongoing as we seek to advance toward, enter into, and, if successful, subsequently increase commercialization activities;
- complete clinical trial protocols and Clinical Investigational Plans with principal investigators for AC5 and submit application to Ethics Committee and required authoritative agencies for initiation of our initial clinical trials;
- commence and complete a human clinical trial(s) for AC5, the timeframe for which is dependent upon successful completion of certain manufacturing, regulatory, and biocompatibility activities;
- continue to expand and enhance our financial and operational reporting and controls;

expand and enhance our intellectual property portfolio by filing new patent applications, obtaining allowances on currently filed patent applications, and adding to our trade secrets in self-assembly, manufacturing, analytical methods and formulation, which activities will be ongoing as we seek to expand our product candidate portfolio; and

assess our self-assembling peptide platform in order to identify and select product candidates for advancement into development.

With respect to our goals relating to AC5, we currently project requiring at least \$3,000,000 - \$5,000,000 of additional expenditures to complete the clinical and regulatory milestones to obtain necessary regulatory approval in Europe. We further expect that obtaining regulatory approvals in the U.S., including conducting additional required clinical trials, would require at least an additional \$7,000,000 - \$9,000,000 in capital. In addition, we further expect to require additional funds for corporate and development programs. These estimated capital requirements potentially could increase significantly if a number of risks relating to conducting these activities were to occur, including without limitation those set forth under the heading “**Risk Factors**” in this filing.

Merger with ABS and Related Activities

As noted earlier in this document, on June 26, 2013, the Company completed the Merger with ABS, pursuant to which ABS became a wholly owned subsidiary of the Company. In contemplation of the Merger, effective May 24, 2013, the Company increased its authorized common stock, par value \$0.001 per share (“**Common Stock**”), from 75,000,000 shares to 300,000,000 shares and effected a forward stock split, by way of a stock dividend, of its issued and outstanding shares of Common Stock at a ratio of 11 shares to each one issued and outstanding share. Also in contemplation of the Merger, effective June 5, 2013, the Company changed its name from Almah, Inc. to Arch Therapeutics, Inc. and changed the ticker symbol under which its Common Stock trades on the OTC Bulletin Board from “AACH” to “ARTH”.

Liquidity

We are in the development stage and have generated no operating revenues to date and do not expect to do so in the foreseeable future due to the early stage nature of our current product candidates. We currently do not have any products that have obtained marketing approval in any jurisdiction. We have net losses for the three months ended June 30, 2015, of \$1,395,245 and net income of \$410,759 for the three months ended June 30, 2014. The loss for the three months ended June 30, 2015 can be attributed to general and administrative costs and increased research and development expenses associated with pre-clinical development expenses and manufacturing and quality management system consulting and advisory related expenses. Net income for the three months ended June 30, 2014, includes a decrease on the fair value on derivative liabilities related to our outstanding warrants of \$1,584,818. For the nine months ended June 30, 2015, we have a net loss of \$1,850,066 versus a net loss of \$8,777,837 in the comparable period in the prior year. The loss for the nine months ended June 30, 2014 is primarily attributable to the \$7,541,693 expense we recorded upon the issuance of the 2014 Warrants associated with the 2014 Private Placement Financing. The loss for the nine months ended June 30, 2015 is primarily attributable to general and administrative costs and increased research and development expenses partially offset by adjustments to the derivative liabilities. We devote a significant amount of our efforts towards fundraising and product research. Cash used in operating activities increased \$247,258 during the nine months ended June 30, 2015 to \$2,626,756, compared to \$2,379,498 during the nine months ended June 30, 2014. The increase was primarily due to an increase in general and administrative expense primarily attributable to increased intellectual property costs and research and development expenses incurred in connection with activities to develop our primary product candidate.

Recent Developments

The Company entered into an agreement to amend certain provisions of the Series A, Series B and Series C Warrants (collectively, the “**2014 Warrants**”) issued by the Company in February 2014 (the “**December 2014 Amendment**”) that it issued in connection with the securities purchase agreement that it entered into on January 31, 2014 (the “**Securities Purchase Agreement**”). Under the terms of the December 2014 Amendment, which became effective December 1, 2014, the 2014 Warrants were amended to (i) reduce the exercise price of the Series B Warrants from \$0.35 to \$0.20, (ii) reduce the exercise price of the Series C Warrants from \$0.40 to \$0.20, and (iii) clarify that each Series of 2014 Warrants may be amended without having to amend all three series of 2014 Warrants. The number of shares of the Company’s Common Stock that may be purchased from the Company upon exercise of each 2014 Warrant remained unchanged.

Prior to their expiration on January 3, 2015, certain holders of the Warrants exercised portions of their Series B Warrants, resulting in an aggregate issuance of 4,000,000 shares of the Company’s Common Stock and gross proceeds to the Company from that exercise of \$800,000.

On March 13, 2015, the Company issued unsecured 8% Convertible Notes (the “**Notes**”) in the aggregate principal amount of \$750,000 in a private placement. The principal and all accrued and unpaid interest on the Notes shall mature and become payable on March 13, 2016, and the Notes (and all interest accrued thereunder) are currently convertible into Common Stock, par value \$0.001 per shares of the Company, at a conversion price of \$0.20 per share. Assuming that the principal outstanding under the Convertible Notes as of June 30, 2015 and the interest accrued thereunder is converted into shares of our Common Stock on March 13, 2016, a total of 4,055,000 shares may be issued upon the conversion of the Convertible Notes.

The Company’s issuance of the Notes triggered the anti-dilution provisions of the Series A Warrants and, as a result, the exercise price of the Series A Warrants was reduced to \$0.20 per share and the aggregate number of shares issuable under the Series A Warrants increased by 5,700,000 shares from 11,400,000 shares to 17,100,000 shares. In addition, pursuant to separate amendments entered into between the Company and Cranshire Capital Master Fund, Ltd. (“**Cranshire**”) on March 13, 2015, and May 30, 2015, respectively the expiration date of the Series C Warrants was extended to June 2, 2015, and July 2, 2015, respectively.

During the quarter ended June 30, 2015, certain holders of the Series C Warrants exercised a portion of their warrants for an aggregate issuance of 2,255,000 shares of the Company’s Common Stock resulting in gross proceeds to the Company of \$451,000.

On June 22, 2015, the Company entered into the Amendment to Series A Warrants and Series C Warrants to Purchase Common Stock (the “**June 2015 Amendment**”) with Cranshire to (i) delete the full ratchet anti-dilution provisions set forth in the Series A Warrants and Series C Warrants and (ii) extend the expiration date of the Series C Warrants from to 5:00 p.m., New York time, on July 2, 2015 to 5:00 p.m., New York time, on July 2, 2016. In consideration of Cranshire’s entrance into the June 2015 Amendment (and for no additional consideration), the Company agreed to issue to the holders of the 2014 Warrants up to 570,000 shares of Company’s Common Stock subject to the delivery by each such holder of an investor certificate to the Company (such shares of Common Stock, the “**Inducement Shares**”).

Beginning June 22, 2015 and through June 30, 2015, Arch Therapeutics, Inc. (the “**Company**”) entered into a series of substantially similar subscription agreements (each a “**Subscription Agreement**”) with 20 accredited investors (collectively, the “**2015 Investors**”) providing for the issuance and sale by the Company to the 2015 Investors, in a private placement, of an aggregate of 14,390,754 Units at a purchase price of \$0.22 per Unit (the “**2015 Private Placement Financing**”). Each Unit consisted of a share of the Company’s Common Stock and a Series D Warrant to purchase a share of Common Stock at an exercise price of \$0.25 per share at any time prior to the fifth anniversary of the issuance date of the Series D Warrant (the “**Warrants**,” and the shares issuable upon exercise of the Series D Warrants, collectively, the “**2015 Warrant Shares**”). The aggregate gross proceeds raised by the Company in the 2015 Private Placement Financing totaled approximately \$3,200,000.

As part of 2015 Private Placement Financing, the Company conducted an initial closing (the “**Initial Closing**”) pursuant to which it sold, and 19 of the 2015 Investors (the “**Initial Investors**”) purchased 13,936,367 Units at an aggregate purchase price of \$3,066,000. On July 2, 2015, the Company conducted a second closing (the “**Second Closing**” and together with the Initial Closing, the “**Closings**”) pursuant to which it sold, and 1 of the 2015 Investors purchased 454,387 Units at an aggregate purchase price of \$100,000.

On May 28, 2015, the Company executed a collaboration agreement with the National University of Ireland Galway (“**NUIG**”) in Galway, Ireland, which will be implemented through the CÚRAM Centre for Research in Medical Devices, a new center of excellence for research based in Galway, Ireland that aims to radically improve health outcomes for patients by developing and collaborating on the development of “smart” medical devices. As part of the collaboration agreement, Arch and CÚRAM intend to deploy resources in Ireland to advance Arch’s technology, ranging from early stage research to late stage development. Under Arch oversight and guidance, personnel from Arch and CÚRAM will work closely together on diverse pipeline projects, including new potential indications and products as well as human clinical trial planning. In addition to receiving infrastructure support, for each €1 up to an annual maximum of €250,000 that Arch contributes to its own R&D activities within CÚRAM, CÚRAM will contribute €2 up to an annual maximum of €500,000 to those same activities, made possible by its grant funding from Science Foundation Ireland (SFI).

Results of Operations

The following discussion of our results of operations should be read together with the unaudited interim consolidated financial statements included in this report. The period to period comparisons of our interim results of operations that follow are not necessarily indicative of future results.

Three Months Ended June 30, 2015 Compared to Three Months Ended June 30, 2014

	June 30, 2015 (\$)	June 30, 2014 (\$)	Increase (Decrease) (\$)
Revenue	-	-	-
Operating Expenses			
General and administrative	813,122	825,951	(12,829)
Research and development	525,107	320,345	204,762
Loss from operations	(1,338,229)	(1,146,296)	(191,933)
Other income (expense)	(57,016)	1,557,055	(1,614,071)
Net income (loss)	(1,395,245)	410,759	(1,806,004)

Revenue

We did not generate revenue in either of the three months ended June 30, 2015 and 2014.

General and Administrative Expense

General and administrative expenses during the three months ended June 30, 2015 were \$813,122, a decrease of \$12,829 compared to \$825,951 for the three months ended June 30, 2014. The decrease in general and administrative expense is primarily attributable to additional expenses being allocated to research and development offset by an increase in legal and patent expenses.

Research and Development Expense

Research and development expense during the three months ended June 30, 2015 was \$525,107, an increase of \$204,762 compared to \$320,345 for the three months ended June 30, 2014. The increase in research and development expense is primarily attributed to an increase in expenses associated with pre-clinical development expenses and manufacturing and quality management system consulting and advisory related expenses. Research and development expenses are expected to increase as a result of our plans to commence clinical studies as resources permit. The Company anticipates that the first clinical trial will commence during the fourth quarter of calendar year 2015.

Other Income (Expense)

Other expense during the three months ended June 30, 2015 was \$57,016 a decrease of \$1,614,071 compared to other income of \$1,557,055 for the three months ended June 30, 2014. This decrease resulted from a change in adjustments to derivative liabilities of \$1,507,508 during fiscal 2015 as compared to fiscal 2014. Other income during the three months ended June 30, 2014 was primarily related to the recording of the value of the derivative liability.

Nine Months Ended June 30, 2015 Compared to Nine Months Ended June 30, 2014

	June 30, 2015 (\$)	June 30, 2014 (\$)	Increase (Decrease) (\$)
Revenue	-	-	-
Operating Expenses			
General and administrative	2,536,654	2,271,443	234,789
Research and development	1,327,337	951,101	376,236
Loss from operations	(3,863,991)	(3,222,544)	(641,447)
Other income (expense)	2,013,925	(5,555,293)	(7,569,218)
Net loss	(1,850,066)	(8,777,837)	(6,927,771)

Revenue

We did not generate revenue in either of the nine months ended June 30, 2015 and 2014.

General and Administrative Expense

General and administrative expenses during the nine months ended June 30, 2015 were \$2,536,654, an increase of \$234,789 compared to \$2,271,443 for the nine months ended June 30, 2014. The increase in general and administrative expense is primarily attributable to increased legal costs related to patents, and stock-based compensation expenses incurred in connection with attracting and retaining key employees. General and administrative expenses are generally expected to increase as a result of the full year impact of new hires and stock based compensation.

Research and Development Expense

Research and development expense during the nine months ended June 30, 2015 was \$1,327,337, an increase of \$376,236 compared to \$951,101 for the nine months ended June 30, 2014. The increase in research and development expense is primarily attributed to an increase in expenses associated with pre-clinical development expenses and manufacturing and quality management system consulting and advisory related expenses. Research and development expenses are expected to increase as a result of our plans to commence clinical studies as resources permit. The Company anticipates that the first clinical trial will commence during the fourth quarter of calendar year 2015.

Other Income (Expense)

Other income during the nine months ended June 30, 2015 was \$2,013,925 an increase of \$7,569,218 compared to other expense of \$5,555,293 for the nine months ended June 30, 2014. The increase in other income (expense) during the nine months ended June 30, 2015 resulted from a change in adjustments to derivative liabilities of \$7,698,572 during fiscal 2015 as compared to fiscal 2014. Other expenses during the nine months ended June 30, 2014 were primarily related to the recording of the value of the derivative liability.

Year Ended September 30, 2014 Compared to Year Ended September 30, 2013

	September 30, 2014	September 30, 2013	Increase (Decrease)
Revenue	\$-	\$-	\$-
Operating Expenses			
General and Administrative	3,134,285	1,526,075	1,608,210
Research and Development	1,477,479	218,901	1,258,578
Loss from Operations	4,611,764	1,744,976	2,866,788
Other Expense	3,531,059	108,815	3,422,244
Net Loss	\$8,142,823	\$1,853,791	\$6,289,032

Revenue

We did not generate any revenue in either of the years ended September 30, 2014 or 2013.

General and Administrative Expense

General and administrative expenses during the year ended September 30, 2014 were \$3,134,285, an increase of \$1,608,210 compared to \$1,526,075 for the year ended September 30, 2013. The increase in general and administrative expense is primarily attributable to increased legal and accounting fees, investor relations expenses, personnel costs and stock-based compensation expenses incurred in connection with attracting and retaining key employees. General and administrative expenses are generally expected to increase as a result of our plans to ramp up operations as resources permit and requirements to comply with public company reporting and control obligations.

Research and Development Expense

Research and development expenses during the year ended September 30, 2014 were \$1,477,479, an increase of \$1,258,578 compared to \$218,901 for the year ended September 30, 2013. The increase in research and development expense is primarily attributed to increased pre-clinical development, additional headcount during the period including the appointment of our Vice President of Research and Development Engineering & Quality Systems as well as outside consultants. These events were possible due to the financings received during the period. Research and development expenses are expected to increase as a result of our plans to pursue additional preclinical and clinical studies as resources permit and otherwise relating to development of our primary product candidate. The Company anticipates commencing a clinical trial for its leading product candidate, the AC5 Surgical Hemostat Device™, during the fourth quarter of calendar year 2015.

Other Income (Expense)

Other expense during the year ended September 30, 2014 was \$3,531,059, an increase of \$3,422,244 compared to total other expense of \$108,815 for the year ended September 30, 2013. The increase in other expense was a result of the loss on the fair value of derivatives liabilities in excess of proceeds on the issuance of warrants of \$7,541,693, partially offset by a gain in the adjustment to fair market value of the derivative liabilities of \$4,121,693. Other expenses during the year ended September 30, 2013 were primarily related to interest on our outstanding debt.

Liquidity and Capital Resources

To date, we have not generated revenues from the sale of any products and have principally raised capital through borrowings and the issuance of convertible debt and units consisting of Common Stock and warrants to fund our operations. At June 30, 2015, inclusive of the funds received upon the Initial Closing of the 2015 Private Placement Financing, we had cash and cash equivalents of \$3,273,764 and positive working capital of \$1,425,966.

On December 1, 2014, we agreed to amend certain provisions of the 2014 Warrants (the “December 2014 Amendment”). Under the terms of the December 2014 Amendment, the 2014 Warrants were amended to (i) reduce the exercise price 2014 of our Series B Warrants from \$0.35 to \$0.20, (ii) reduce the exercise price of our Series C Warrants from \$0.40 to \$0.20, and (iii) clarify that each Series of 2014 Warrants may be amended without having to amend all three series of 2014 Warrants. The number of shares of our Common Stock which may be purchased from the Company upon exercise of the 2014 Warrants remained unchanged.

On March 13, 2015, the Company issued Notes in the aggregate principal amount of \$750,000. The Company's issuance of the Notes triggered the anti-dilution provisions of the Series A Warrants and, as a result, the exercise price of the Series A Warrants was reduced to \$0.20 per share and the aggregate number of shares issuable under the Series A Warrants increased by 5,700,000 shares from 11,400,000 shares to 17,100,000 shares. In addition, pursuant to separate amendments entered into between the Company and Cranshire on March 13, 2015 and May 30, 2015, respectively the expiration date of the Series C Warrants was extended to June 2, 2015 and July 2, 2015, respectively.

On June 22, 2015, the Company entered into the June 2015 Amendment with Cranshire to (i) delete the full ratchet anti-dilution provisions set forth in the Series A Warrants and Series C Warrants and (ii) extend the expiration date of the Series C Warrants from to 5:00 p.m., New York time, on July 2, 2015 to 5:00 p.m., New York time, on July 2, 2016. In consideration of Cranshire's entrance into the Amendment (and for no additional consideration), the Company agreed to issue to the holders of the 2014 Warrants up to 570,000 Inducement Shares, subject to the delivery by each such holder of an investor certificate to the Company.

As of June 30, 2015, 4,000,000 Series B Warrants had been exercised for an aggregate of 4,000,000 shares of our Common Stock, resulting in gross proceeds to the Company of \$800,000. In addition, 2,255,000 Series C Warrants had been exercised for an aggregate of 2,255,000 shares of our Common Stock, resulting in gross proceeds to the Company of \$451,000.

Cash Used in Operating Activities

Working Capital

At June 30, 2015, we had total current assets of \$3,317,855 (including cash and cash equivalents of \$3,273,764) and working capital of \$1,425,966. Our working capital as of June 30, 2015 and September 30, 2014 is summarized as follows:

	June 30, 2015	September 30, 2014
Total Current Assets	\$3,317,855	\$ 876,990
Total Current Liabilities	1,891,889	2,723,667
Working Capital	\$1,425,966	\$ (1,846,677)

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Total current assets as of June 30, 2015 were \$3,317,855, an increase of \$2,440,865 compared to \$876,990 as of September 30, 2014. The increase in current assets is primarily attributable to an \$800,000 in gross proceeds received from the exercise of our Series B Warrants, \$750,000 proceeds received from our Notes, \$451,000 proceeds received from the exercise of our Series C Warrants and \$3,066,000 proceeds received from the 2015 Private Placement Financing. This was partially offset by an increase in general and administrative expense resulting from intellectual property costs and research and development expenses incurred in connection with activities to develop our primary product candidate. Our total current assets as of June 30, 2015 and September 30, 2014 were comprised primarily of cash and cash equivalents, prepaid expenses and other current assets.

Total current liabilities as of June 30, 2015 were \$1,891,889, a decrease of \$831,778 compared to \$2,723,667 as of September 30, 2014. The decrease is primarily due to the decrease in the current derivative liabilities partially offset by the timing of payments in accounts payable. Our total current liabilities as of June 30, 2015 and September 30, 2014 were comprised primarily of the current portion of the derivative liability, the Notes, accounts payable and accrued expenses.

Cash Flow

	June 30, 2015	June 30, 2014
Cash Used in Operating Activities	\$(2,626,756)	\$(2,379,498)
Cash Used in Investing Activities	-	-
Cash Provided by Financing Activities	5,067,000	3,624,703
Net increase in cash and cash equivalents	\$2,440,244	\$1,245,205

Cash Used in Operating Activities

Cash used in operating activities increased \$247,258 during the nine months ended June 30, 2015 to \$2,626,756, compared to \$2,379,498 during the nine months ended June 30, 2014. The increase was primarily due to an increase in general and administrative expense primarily attributable to increased intellectual property costs and research and development expenses incurred in connection with activities to develop our primary product candidate.

Cash Used in Investing Activities

There was no cash used in investing activities during the nine months ended June 30, 2015 and 2014, respectively.

Cash Provided by Financing Activities

Cash provided by financing activities increased \$1,442,297 to \$5,067,000 during the nine months ended June 30, 2015, compared to \$3,624,703 during the nine months ended June 30, 2014. For the nine months ended June 30, 2015, the cash provided by financing resulted from the \$800,000 in proceeds received by us from the exercise of Series B Warrants to purchase 4,000,000 shares of our Common Stock, proceeds received of \$451,000 from the exercise of the Series C Warrants to purchase 2,255,000 shares of our Common Stock, proceeds received of \$750,000 from the issuance of the 8% Convertible Note and proceeds received of \$3,066,000 from 2015 Private Placement Financing to purchase 13,936,363 shares of our Common Stock and Series D Warrants exercisable for an equivalent number of shares. For the nine months ended June 30, 2014, cash provided by financing activities resulted from the \$1,000,000 funding obtained under the MLSC Loan Agreement and \$2,624,703 from the issuance of Common Stock and 2014 Warrants.

Cash Requirements

We anticipate that our operating and other expenses will increase significantly as we continue to implement our business plan and pursue our operational goals. Our cash requirements for our fiscal year ending September 30, 2015 were approximately \$4,000,000. After giving effect to the funds received in past equity and debt financings and assuming our use of that funding at the rate we presently anticipate, as of October 15, 2015, we believe that we will have sufficient cash to meet our anticipated requirements through May 2016. We will require additional financing to fund our planned future operations, including the continuation of our ongoing research and development efforts, seeking to license or acquire new assets, and researching and developing any potential patents, the related compounds and any further intellectual property that we may acquire. In addition, our estimates of the amount of cash necessary to operate our business may prove to be wrong and we could spend our available financial resources much faster than we

currently expect. Further, our estimates regarding our use of cash could change if we encounter unanticipated difficulties or other issues arise, in which case our current funds may not be sufficient to operate our business for the period we expect.

We do not presently have, nor do we expect in the near future to have, revenue to fund our business from our operations, and will need to obtain all of our necessary funding from external sources for the foreseeable future. We do not have any commitments for future capital. Significant additional financing will be required to fund our planned operations in the near term and in future periods, including research and development activities relating to our principal product candidate, seeking regulatory approval of that or any other product candidate we may choose to develop, commercializing any product candidate for which we are able to obtain regulatory approval or certification, seeking to license or acquire new assets or businesses, and maintaining our intellectual property rights and pursuing rights to new technologies. We may not be able to obtain additional financing on commercially reasonable or acceptable terms when needed, or at all. We are bound by certain terms and obligations that may limit or otherwise impact our ability to raise additional funding in the near-term, including restrictive covenants in the MLSC Loan Agreement that limit our ability to incur certain types of additional indebtedness. These restrictions and provisions could make it more challenging for us to raise capital through the incurrence of debt or through equity issuances. If we cannot raise the money that we need in order to continue to develop our business, we will be forced to delay, scale back or eliminate some or all of our proposed operations. If any of these were to occur, there is a substantial risk that our business would fail and our stockholders could lose all of their investments.

As previously noted, since inception we have funded our operations primarily through equity and debt financings and we expect to continue to seek to do so in the future. If we obtain additional financing by issuing equity securities, our existing stockholders' ownership will be diluted. Additionally, the terms of securities we may issue in future capital-raising transactions may be more favorable for our new investors, and in particular may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have additional dilutive effects. If we obtain additional financing by incurring debt, we may become subject to significant limitations and restrictions on our operations pursuant to the terms of any loan or credit agreement governing the debt, which would be in addition to those currently imposed by the MLSC Loan Agreement. Further, obtaining any loan, assuming a loan would be available when needed on acceptable terms, would increase our liabilities and future cash commitments. We may also seek funding from collaboration or licensing arrangements in the future, which may require that we relinquish potentially valuable rights to our product candidates or proprietary technologies or grant licenses on terms that are not favorable to us. Moreover, regardless of the manner in which we seek to raise capital, we may incur substantial costs in those pursuits, including investment banking fees, legal fees, accounting fees, printing and distribution expenses and other related costs.

Going Concern

We have not earned operating revenues from sales of products or services, and have recurring losses from operations. The continuation of our business as a going concern is dependent upon raising additional capital and eventually attaining and maintaining profitable operations. As of June 30, 2015, there is substantial doubt about the Company's ability to continue as a going concern. The unaudited interim consolidated financial statements included in this prospectus do not include any adjustments that might be necessary should operations discontinue.

Critical Accounting Policies and Significant Judgments and Estimates

Pursuant to certain disclosure guidance issued by the SEC, the SEC defines "critical accounting policies" as those that require the application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Our critical accounting policies that we anticipate will require the application of our most difficult, subjective or complex judgments are as follows:

Basis of Presentation

The consolidated financial statements presented with this prospectus include the accounts of Arch Therapeutics, Inc. and its wholly owned subsidiary, Arch Biosurgery, Inc. a life science medical device company. All intercompany

accounts and transactions have been eliminated in consolidation.

The Company is in the development stage and is devoting substantially all of its efforts to developing technologies, raising capital, establishing customer and vendor relationships, and recruiting new employees.

Income Taxes

In accordance with FASB ASC 740, Income Taxes, we recognize deferred tax assets and liabilities for the expected future tax consequences or events that have been included in our financial statements and/or tax returns. Deferred tax assets and liabilities are based upon the differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

We provide reserves for potential payments of tax to various tax authorities related to uncertain tax positions when management determines that it is probable that a loss will be incurred related to these matters and the amount of the loss is reasonably determinable. We have no reserves related to uncertain tax positions as of June 30, 2015 and September 30, 2014.

Accounting for Stock-Based Compensation

The Company accounts for employee stock-based compensation in accordance with the ASC 718, *Compensation-Stock Compensation* (“ASC 718”) that requires all share-based payments to employees, including grants of employee stock options, to be recognized in the consolidated financial statements based on their fair values. The Company accounts for non-employee stock-based compensation in accordance with the guidance of ASC 505, *Equity* (“ASC 505”), which requires that companies recognize compensation expense based on the estimated fair value of options granted to non-employees over their vesting period, which is generally the period during which services are rendered by such non-employees. ASC 505 requires the Company to re-measure the fair value of stock options issued to non-employees at each reporting period during the vesting period or until services are complete.

In accordance with ASC 718, the Company has elected to use the Black-Scholes option pricing model to determine the fair value of options granted and recognizes the compensation cost of share-based awards on a straight-line basis over the vesting period of the award.

The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by the fair value of the Common Stock and a number of other assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The Company does not have a history of market prices of the Common Stock, and as such volatility is estimated in accordance with ASC 718-10-S99 Staff Accounting Bulletin (“SAB”) No. 107, *Share-Based Payment* (“SAB No. 107”), using historical volatilities of similar public entities. The life term for awards, therefore, uses the simplified method for all “plain vanilla” options, as defined in SAB No. 107 and the contractual term for all other employee and non-employee awards. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our awards. The dividend yield assumption is based on history and the expectation of paying no dividends. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Stock-based compensation expense, when recognized in the consolidated financial statements, is based on awards that are ultimately expected to vest.

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument, in accordance with ASC 815, *Derivatives and Hedging*. Warrants classified as equity are recorded at fair value as of the date of issuance on the Company’s consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company’s consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate.

Recent Accounting Guidance

Accounting Standards Update (ASU) 2015-03 “Interest – Imputation of Interest (Subtopic 835-30) Simplifying the Presentation of Debt Issuance Costs” was issued by the FASB in April 2015. The purpose of this amendment requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The amendments in this Update are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. Early application is permitted. The Company does not believe that this guidance will have a

material impact on its consolidated results of operations, financial position or disclosures.

ASU 2015-02, “Consolidation (Topic 810) – Amendments to the Consolidation Analysis”, was issued by the FASB in February 2015. The purpose of this amendment is to change the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. The amendments in this Update are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. Early application is permitted. The Company does not believe that this guidance will have a material impact on its consolidated results of operations or financial position or disclosures.

ASU 2014-16, “Derivatives and Hedging (Topic 815)” (“ASU 2014-16”) was issued by the FASB in November 2014. The primary purpose of the ASU is to determine whether the host contract in a Hybrid Financial Instrument issued in the form of a share is more akin to debt or equity. ASU 2014-16 is effective for public entities for the fiscal years and interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted. The Company does not believe that this guidance will have a material impact on its consolidated results of operations or financial position or disclosures.

ASU 2014-15, “Presentation of Financial Statements-Going Concern (Subtopic 205-40) – Disclosure of Uncertainties about an Entity’s Ability to ‘Continue as a Going Concern” (“ASU 2014-15”) was issued by the FASB in August 2014. The primary purpose of the ASU is to provide guidance in GAAP about management’s responsibility to evaluate whether there is substantial doubt about an entity’s ability to continue as a going concern and to provide related