

Michael Bruch
Chief Financial Officer
2711 Citrus Road
Rancho Cordova, CA 95742
(916) 858-5100

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

Copy to:

Evan Y. Ng, Esq.
Jason R. Wisniewski, Esq.
305 Lytton Avenue
Palo Alto, CA 94301
Telephone Number: (650) 857-1717
Fax Number: (650) 857-1288

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

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If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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 12b2 of the Exchange Act.

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

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Security Being Registered | Amount Being Registered⁽¹⁾ | Proposed Maximum offering Price per Security⁽²⁾ | Proposed Maximum Aggregate Offering Price⁽²⁾ | Amount of Registration Fee |
|---|--|---|--|-----------------------------------|
| Common Stock Underlying Series A Warrants | 404,410 | \$ 3.04 | \$1,229,406 | \$ 142.49 |
| Common Stock | 545,590 | 3.04 | \$1,658,594 | \$ 192.23 |
| Total | 950,000 | | | \$ 334.72 |

Pursuant to Rule 416 under the Securities Act of 1933, as amended (“Securities Act”), the shares of common stock (1) offered hereby also include an indeterminate number of additional shares of common stock as may from time to time become issuable by reason of stock splits, stock dividends, recapitalizations or other similar transactions.

Calculated in accordance with Rule 457(c) of the Securities Act of 1933, as amended (“Securities Act”). Estimated (2) for the sole purpose of calculating the registration fee and based upon the average of the high and low price per share of our common stock on January 18, 2017, as reported on the Nasdaq Capital Market.

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.

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

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION: DATED JANUARY 20, 2017

CESCA THERAPEUTICS INC.

404,410 Shares of Common Stock Underlying Warrants and

545,590 Shares of Common Stock

This prospectus relates to the resale at various times, by the selling stockholders identified in this prospectus (the “Selling Stockholders”), of up to 950,000 shares of Common Stock, par value \$0.001 per share (“Common Stock”), which includes 404,410 shares of Common Stock (the “Warrant Shares”) issuable upon exercise of certain Series A Common Stock Purchase Warrants issued on August 31, 2015 (the “Series A Warrants”) and 545,590 shares of Common Stock (the “Note Shares”, and collectively with the Warrant Shares, the “Shares”) previously issued upon the conversion of that certain Secured Convertible Debenture issued on February 13, 2016 (the “Convertible Note”). See “Description of Securities” beginning on page 15 of this prospectus.

The Shares are being offered by the Selling Stockholders identified in this prospectus. We may add, update or change the Selling Stockholders identified in this prospectus in a prospectus supplement. To the extent that a statement made in a prospectus supplement conflicts with statements made in this prospectus, the statements made in the prospectus supplement will be deemed to modify or supersede those made in this prospectus.

We will not receive any of the proceeds from the sale of the Shares by the Selling Stockholders, except for payment of any cash exercise price upon exercise of the Series A Warrants. See “Use of Proceeds” on page 15 of this prospectus. The Selling Stockholders may sell their Shares on any stock exchange, market or trading facility on which the Shares are traded or quoted, or in private transactions. These sales may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. See “Plan of Distribution” on page 19 of this prospectus.

All expenses of registration incurred in connection with this offering are being borne by us. All selling and other expenses incurred by the Selling Stockholders will be borne by the Selling Stockholders.

Our Common Stock is traded on The Nasdaq Capital Market under the symbol "KOOL." On January 19, 2017, the closing sale price of our Common Stock on The Nasdaq Capital Market was \$3.03 per share.

These are speculative securities. Investing in these securities involves significant risks. You should purchase these securities only if you can afford a complete loss of your investment. You should carefully consider the risk factors beginning on page 4 of this prospectus before purchasing any of the Common Stock offered by this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES, OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is January 20, 2017

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ABOUT THIS PROSPECTUS

You should rely only on the information contained in this prospectus or incorporated by reference into this prospectus. Neither we, nor the selling stockholders, have authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus, any prospectus supplement or any document incorporated by reference into this prospectus is accurate only as of the date hereof, regardless of the time of delivery of this prospectus or the time of issuance or sale of any securities. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus in its entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the section of this prospectus entitled “Where You Can Find More Information” on page 20 of this prospectus.

We further note that the representations, warranties and covenants made by us in any document that is filed as an exhibit to the registration statement of which this prospectus is a part and in any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

For investors outside the United States, neither we nor the underwriter are making an offer to sell these securities in any jurisdiction where the offer is not permitted. Neither we nor the selling stockholders have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

This prospectus contains forward-looking statements that involve risks and uncertainties. See “Cautionary Note Regarding Forward-Looking Statements” on page 1 of this prospectus.

Unless the context otherwise requires, the terms “Cesca Therapeutics Inc.,” “Cesca,” the “Company,” “we,” “us,” “our” and similar terms used in this prospectus refer to Cesca Therapeutics Inc. and our subsidiaries.

On March 4, 2016, we effected a one (1) for twenty (20) reverse split of our issued and outstanding common stock. There were no changes to our authorized number of shares of common stock of 350,000,000. Unless otherwise indicated, all historical share amounts disclosed herein have been retroactively recast to reflect the reverse split and

subsequent share exchange.

This prospectus and the documents incorporated herein by reference includes information with respect to market and industry conditions and market share from third-party sources or based upon estimates using such sources when available. We believe that such information and estimates are reasonable and reliable. We also believe the information extracted from publications of third-party sources has been accurately reproduced. However, we have not independently verified any of the data from third-party sources. Similarly, our internal research is based upon our understanding of industry conditions, and such information has not been verified by any independent sources.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference in this prospectus contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact included in this prospectus and the documents incorporated by reference in this prospectus, are forward-looking statements. Reference is made in particular to the description of our plans and objectives for future operations, assumptions underlying such plans and objectives, and other forward-looking statements included in this report. Such statements may be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “believe,” “estimate,” “anticipate,” “intend,” “continue,” “plan,” “predict,” “seek,” “should,” “would,” “could,” “potential,” “or” terms, variations of such terms, or the negative of such terms, and include, but are not limited to, statements regarding projected results of operations, capital expenditures, earnings, management’s future strategic plans, development of new technologies, products and services, litigation, regulatory matters, market acceptance and performance of our products and services, the success and effectiveness of our technologies, products and services, our ability to retain and hire key personnel, the competitive nature of and anticipated growth in our markets, market position of our products and services, marketing efforts and partnerships, liquidity and capital resources, our accounting estimates, and our assumptions and judgments. Such statements are based on management’s current expectations, estimates and projections about our industry, management’s beliefs, and certain assumptions made by us, all of which are subject to change.

These forward looking statements are not guarantees of future results and are subject to a number of risks, uncertainties and assumptions that are difficult to predict and that could cause actual results to differ materially and adversely from those described in the forward-looking statements, including:

- the sufficiency and source of capital required to fund our operations and in furtherance of our business plan;
- our ability to remain listed on the Nasdaq Capital Market and remain in compliance with its listing standards;
- the global perception of the clinical utility of banked cord blood and the amount of investment in research and development supporting clinical data for additional applications;
- delays in commencing or completing clinical testing of products;
- the success of any collaborative arrangements to commercialize our products;
- our reliance on significant distributors or end users;
- the availability and sufficiency of commercial scale manufacturing facilities and reliance on third party contract manufacturers; and
- our ability to protect our patents and trademarks in the U.S. and other countries.

You should also consider carefully the statements under “Risk Factors” and other sections of this prospectus, which address additional factors that could cause our actual results to differ from those set forth in the forward-looking statements. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein, or the documents incorporated by reference herein, to reflect any change in our expectations or any changes in events, conditions or circumstances on which any such statement is based, except as required by law.

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PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus. Because it is a summary, it does not contain all of the information that you should consider before investing in the Shares. You should read the entire prospectus carefully. The following summary is qualified in its entirety by reference to the information appearing elsewhere in this prospectus.

The Company

We are a clinical stage biotechnology company which develops and markets integrated cellular therapies and delivery systems that advance the safe and effective practice of regenerative medicine. We are a leader in the development and manufacture of automated blood and bone marrow processing systems that enable the separation, processing and preservation of cell and tissue therapy products. Our two subsidiaries based in India, TotipotentRX and TotipotentSC, have a pipeline of human point of care experimental therapies in early stage clinical studies using bone marrow and blood derived cells and growth factors. We were founded in 1986 and are headquartered in Rancho Cordova, California. Our strategy is to continue to enhance the performance and competitiveness of our flagship product lines in the cord blood banking arena while expanding into significant new growth opportunity areas in point of care therapeutics. We are developing a number of offerings for the delivery of autologous cell therapies that address significant unmet medical needs and expect to partner with other pioneers in the stem cell arena to accelerate clinical evaluations, expedite regulatory approvals and penetrate the market.

Our principal business office is located at 2711 Citrus Road, Rancho Cordova, California 95742, and our telephone number is (916) 858-5100. Our website address is www.cescatherapeutics.com. Information contained in our website or any other website does not constitute part of this prospectus.

RECENT DEVELOPMENTS

On January 5, 2017, we announced that we received approval from the U.S. Food and Drug Administration (FDA) for significant revisions to our pivotal study for treatment of Critical Limb Ischemia (CLI). The CLI clinical trial is designed to demonstrate the safety and efficacy of our point-of-care SurgWerks system for the treatment of CLI patients with limited or no treatment options. The study was first approved by the FDA in June 2015, but was not initiated at that time pending funding.

The changes approved by the FDA are intended to increase patient enrollment by expanding the patient pool from Rutherford Category 5 patients only, to also include Rutherford Category 4 patients, or patients with a less severe form of the disease. In addition, the study population has been expanded to include patients who are poor candidates for either surgery or endovascular therapies, as opposed to only those patients with no viable treatment options. Finally, the FDA accepted to change the control arm from a placebo, which was both invasive and carried measureable safety risk, to a much less risky sham procedure. Although the primary endpoint remains Amputation Free Survival (AFS), a standard in all current CLI drug and biologic trials, the FDA recognized the need to increase the available patient population in order to properly power the clinical trial. Compared to the initial study design, the sample size was increased from 224 to 362 patients, which in turn allowed the superiority margin to be reduced from 20% to 13%. We believe that the reduced superiority margin is both achievable and clinically relevant. Due to the increased patient pool, it is expected that enrollment rates will be better than previous CLI clinical trials. Other improvements to the study include a reduction in study-related testing, improved statistical methods, and streamlined study oversight, all of which are intended to reduce costs and improve patient recruitment and investigator participation.

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THE OFFERING

Common Stock offered by the Selling Stockholders 404,410 shares of our Common Stock to be offered by Selling Stockholders upon the exercise of Series A Warrants at an exercise price of \$8.00 per share, and 545,590 shares of our Common Stock to be offered by the Selling Stockholders that were issued upon conversion of the Convertible Note.

Common Stock to be outstanding after the offering 10,290,812 shares⁽¹⁾

Use of proceeds The Shares offered by this prospectus will be sold by the Selling Stockholders. We will not receive any proceeds from the sale of Shares by the Selling Stockholders, except for payment of any cash exercise price upon exercise of the Series A Warrants, which amounts, if any, will be used for general corporate purposes. See the section titled "Use of Proceeds."

Risk factors You should carefully consider the information set forth in this prospectus and, in particular, the specific factors set forth in the "Risk Factors" section on page 4 of this prospectus, before deciding whether or not to invest in shares of our Common Stock.

⁽¹⁾ The number of shares of our Common Stock to be outstanding immediately after this offering is based on 9,886,402 shares of our Common Stock outstanding as of January 13, 2017.

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RISK FACTORS

An investment in our shares of Common Stock involves a high degree of risk and should be considered speculative. An investment in our shares of Common Stock should only be undertaken by those persons who can afford the total loss of their investment. You should carefully consider the risks and uncertainties described below, as well as other information contained in this prospectus, any prospectus supplement, our Annual Report on Form 10-K (as amended on our Form 10-K/A), our Quarterly Reports on Form 10-Q, our Current Reports filed on Form 8-K, and in our other filings with the SEC, including any subsequent reports filed on Forms 10-K, 10-K/A, 10-Q and 8-K. The risks and uncertainties below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we believe to be immaterial may also adversely affect our business. If any of the following risks occur, our business, financial condition and results of operations could be seriously harmed and you could lose all or part of your investment. Further, if we fail to meet the expectations of the public market in any given period, the market price of our shares of common stock could decline. We operate in a highly competitive environment that involves significant risks and uncertainties, some of which are outside of our control.

Risks Related to Our Business

Lack of demonstrated clinical utility of cord blood-derived stem cells beyond hematopoietic transplantation may result in a decline in demand for cord blood banking services, adversely affecting sales of our products.

Transplants using stem cells derived from cord blood and cord tissue have become a standard procedure for treating blood cell lineage disorders including leukemia, lymphoma and anemia. However, clinical research demonstrating the utility of cord blood stem cells for use in treating other diseases or injuries has been minimal, leaving claims of broad clinical utility of cord blood stem cells by cord blood banks largely unsubstantiated. The low utilization rate of banked cord blood samples coupled with the lack of demonstrated clinical results for multiple treatment indications has led to consumer skepticism regarding the benefits of cord blood banking and, in turn, a significant reduction in collection rates in a number of geographies in Europe and the U.S. A continued lack of investment in the research and development of supporting clinical data for additional applications may lead to greater skepticism globally, further adversely affecting demand for cord blood banking services and our revenues.

We have limited operating history in the emerging regenerative medicine industry.

Through the merger with TotipotentRX, we are in the business of research, development and commercialization of autologous cell-based therapeutics for use in the emerging regenerative medicine industry, and therefore, we have a limited operating history in such industry on which to base an evaluation of our business and prospects. We will be

subject to the risks inherent in the operation of a company in an emerging industry such as regulatory setbacks and delays, fluctuations in expenses, competition, and governmental regulation.

Our controlling stockholder has significant influence over us which could limit your ability to influence the outcome of key transactions, including a change of control, and could negatively impact the market price of our common stock by discouraging third party investors.

As of January 13, 2017, approximately 70% of our outstanding common stock is owned by Boyalife (Hong Kong) Limited. In addition, pursuant to the terms of a Nomination and Voting Agreement we entered into with Boyalife (Hong Kong) Limited and Boyalife Investment Inc. in February 2016, Boyalife (Hong Kong) Limited and Boyalife Investment Inc. have the right to designate up to three of the seven members to our board of directors until such time as they collectively no longer hold at least 50% of our common stock. As Boyalife (Hong Kong) Limited and Boyalife Investment Inc. collectively own greater than 50% of the issued and outstanding common stock, Boyalife (Hong Kong) Limited and Boyalife Investment Inc. have the ability to remove members of our board of directors without cause and without prior notice.

Boyalife (Hong Kong) Limited is 100% owned by Yishu Li, the spouse of Dr. Xiachun Xu, our interim CEO and chairman of our board of directors. Boyalife Investment Inc. is also controlled by Dr. Xu. As a result of their ownership and ability to designate up to three members of our board of directors, Boyalife (Hong Kong) Limited and Boyalife Investment Inc. (including Dr. Xu and his spouse Ms. Li) will be able to exercise significant influence over all matters affecting us, including the election of directors, formation and execution of business strategy and approval of mergers, acquisitions and other significant corporate transactions, which may have an adverse effect on our stock price and ability to execute our strategic initiatives. They may have conflicts of interest and interests that are not aligned with those of other investors in all respects. As a result of the concentrated ownership of our common stock, a relatively small number of stockholders, acting together, are able to control all matters requiring stockholder approval. This concentration of ownership may delay or prevent a change in control and may have a negative impact on the market price of our common stock by discouraging third party investors.

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We have received proposals to sell our cord blood banking product lines in the past, and we may receive additional proposals in the future, which if accepted would result in the loss of significant product lines and revenue source.

On June 23, 2016, we received from Boyalife (Hong Kong) Limited, our controlling shareholder, and Boyalife Investment Inc., both of which are affiliates of Dr. Xiachun Xu, our interim Chief Executive Officer and Chairman of our board of directors, a non-binding term sheet (the “Proposal”), relating to a proposed additional investment in Cesca, which also contemplated among other things the sale of our cord blood product lines to Boyalife Investment Inc., Boyalife (Hong Kong) Limited or one of their affiliates, or the Boyalife Affiliates, at a cost equal to its annual revenue. The independent directors had reservations about a number of aspects of the Proposal, and the Proposal expired by its terms on June 30, 2016. The Boyalife Affiliates may submit additional proposals to acquire our cord blood product lines in the future on similar or different terms as to those set forth in the original Proposal. Any proposal for the acquisition of our cord banking product lines by the Boyalife Affiliates or any other third party will need to be evaluated by our board of directors at the time such proposal is received based on the condition, financial and otherwise, of Cesca at the time such proposal is received. We cannot assure what terms and conditions would be acceptable to our board of directors with respect to the receipt of any future proposal to acquire our cord blood banking product lines, nor whether, based upon the then existing condition of Cesca, the prior Proposal would have been superior to what the board of directors may ultimately approve. Additionally, in the event the board of directors receives a proposal from a third party to acquire its cord blood banking product lines that it determines is superior to the Proposal or a subsequent competing proposal from the Boyalife Affiliates, the Boyalife Affiliates may use their significant control over us as our controlling shareholder to prevent the sale of our cord blood banking business unit to such third party. In any event, the sale of our cord blood banking product lines, if any and regardless of the terms, would result in the loss of a significant revenue source and operations.

Our potential products and technologies are in early stages of development.

The development of new cell therapy products is a highly risky undertaking, and there can be no assurance that any future research and development efforts we may undertake will be successful. Our potential products in vascular, orthopedic, hematological/oncological and wound care indications will require extensive additional research and development and regulatory approval before any commercial introduction. There can be no assurance that any future research, development and clinical trial efforts will result in viable products or meet efficacy standards.

We intend to rely on third parties for certain functions in conducting clinical trials of our product candidates.

We intend to rely on third parties for certain clinical trial activities of our products. In this regard, we have an agreement with Fortis Healthcare Limited, a hospital chain networked throughout India and Asia, for contract clinical trial services among other services. The agreement expires in August 2017. Termination, or the non-renewal upon expiration, of this agreement could jeopardize or delay development of our products.

Delays in the commencement or completion of clinical testing of our products could result in increased costs to us and delay our ability to generate revenues.

Delays in the commencement or completion of clinical testing could significantly impact our product development costs. We do not know whether current or planned clinical trials will begin on time or be completed on schedule, if at all. The commencement of clinical trials can be delayed for a variety of reasons, including delays in:

- Obtaining regulatory approval to commence a clinical trial;
- Having the necessary funding in place to conduct the clinical trial;
- Reaching agreement on acceptable terms with prospective contract research organizations and clinical trial sites for phase II and III trials;
- Obtaining proper devices for any or all of the product candidates;
- Obtaining institutional review board approval to conduct a clinical trial at a prospective site; and
- Recruiting participants for a clinical trial.

In addition, once a clinical trial has begun, it may be suspended or terminated by us or the FDA or other regulatory authorities due to a number of factors, including:

- Failure to conduct the clinical trial in accordance with regulatory requirements;
- Inspection of the clinical trial operations or clinical trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- Failure to achieve certain efficacy and/or safety standards;
- Reports of serious adverse events including but not limited to death of trial subjects; or
- Lack of adequate funding to continue the clinical trial.

Our clinical therapy candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs that we expect to pursue.

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We may seek to enter into collaborative arrangements to develop and commercialize products which may not be successful.

We may seek to enter into collaborative arrangements to develop and commercialize some of our potential products both in North America and international markets. There can be no assurance that we will be able to negotiate collaborative arrangements on favorable terms or at all or that current or future collaborative arrangements will be successful.

A significant portion of revenue is derived from customers outside the United States. We may lose revenues, market share, and profits due to exchange rate fluctuations and political and economic changes related to our foreign business.

In the year ended June 30, 2016, sales to customers outside the U.S. comprised approximately 57% of revenues. This compares to 47% in fiscal 2015. Our foreign business is subject to economic, political and regulatory uncertainties and risks that are unique to each area of the world. Fluctuations in exchange rates may also affect the prices that foreign customers are willing to pay, and may put us at a price disadvantage compared to other competitors. Potentially volatile shifts in exchange rates may negatively affect our financial position and results.

The loss of a significant distributor or end user customer may adversely affect financial condition and results of operations.

Revenues from two significant distributors/customers comprised 44% of revenues for the year ended June 30, 2016. The loss of a large end user customer or distributor may decrease revenues.

We may be exposed to liabilities under the Foreign Corrupt Practices Act and any determination that we violated these laws could have a material adverse effect on our business.

We are subject to the Foreign Corrupt Practices Act, or FCPA, and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by U.S. persons and issuers as defined by the statute, for the purpose of obtaining or retaining business. It is our policy to implement safeguards to discourage these practices by our employees. However, our existing safeguards and any future improvements may prove to be less than effective and our employees, consultants, sales agents or distributors may engage in conduct for which we might be held responsible. Violations of the FCPA may result in severe criminal or civil sanctions and we

may be subject to other liabilities, which could negatively affect our business, operating results and financial condition.

Adverse results of legal proceedings could have a material adverse effect on us.

We are subject to, and may in the future be subject to, a variety of legal proceedings and claims that arise out of the ordinary conduct of our business. Results of legal proceedings cannot be predicted with certainty. Irrespective of their merits, legal proceedings may be both lengthy and disruptive to our operations and may cause significant expenditure and diversion of management attention. We may be faced with significant monetary damages or injunctive relief against us that could have a material adverse effect on a portion of our business operations or a material adverse effect on our financial condition and results of operations.

Risks Related to Our Operations

Our ability to conduct a CLIRST III clinical Trial is substantially dependent on our ability to secure additional funding and there are no assurances that such funding will materialize.

Although a portion of the net proceeds we received from the February 2016 and August 2016 financings is expected to be used to fund our ongoing operations and CLIRST III trial, these proceeds will not be sufficient, and we will need to raise additional funding. We cannot assure that such funding will be available on a timely basis, in needed quantities, or on terms favorable to us, if at all.

We do not have commercial-scale manufacturing capability and lack commercial manufacturing experience.

We operate GMP manufacturing facilities for both devices and cellular production; however, they are not of sufficient size for medium to large commercial production of product candidates. We will not have large scale experience in cell-drug formulation or manufacturing, and will lack the resources and the capability to manufacture any of our product candidates on a clinical or commercial scale. Accordingly, we expect to depend on third-party contract manufacturers for the foreseeable future. Any performance failure on the part of our contract manufacturers could delay clinical development, regulatory approval or commercialization of our current or future products, depriving us of potential product revenues and resulting in additional losses.

We have limited sales, marketing and distribution experience in pharmaceutical products.

We have limited experience in the sales, marketing, and distribution of pharmaceutical products. There can be no assurance that we will be able to establish sales, marketing, and distribution capabilities or make arrangements with current collaborators or others to perform such activities or that such effort will be successful. If we decide to market any of our new products directly, we must either partner, acquire or internally develop a marketing and sales force with technical expertise and with supporting distribution capabilities. The acquisition or development of a sales, marketing and distribution infrastructure would require substantial resources, which may not be available to us or, even if available, divert the attention of our management and key personnel, and have a negative impact on further product development efforts.

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Our inability to protect our patents, trademarks, trade secrets and other proprietary rights could adversely impact our competitive position.

We believe that our patents, trademarks, trade secrets and other proprietary rights are important to our success and our competitive position. Accordingly, we commit substantial resources to the establishment and protection of our patents, trademarks, trade secrets and proprietary rights. We use various methods, including confidentiality agreements with employees, vendors, and customers, to protect our trade secrets and proprietary know-how for our products. We currently hold patents for products, and have patents pending in certain countries for additional products that we market or intend to market. However, our actions to establish and protect our patents, trademarks, and other proprietary rights may be inadequate to prevent imitation of our products by others or to prevent others from claiming violations of their trademarks and proprietary rights by us. If our products are challenged as infringing upon patents of other parties, we may be required to modify the design of the product, obtain a license, or litigate the issues, all of which may have an adverse business effect on us.

We may be subject to claims that our products or processes infringe the intellectual property rights of others, which may cause us to pay unexpected litigation costs or damages, modify our products or processes or prevent us from selling our products.

Although it is our intention to avoid infringing or otherwise violating the intellectual property rights of others, third parties may nevertheless claim that our processes and products infringe their intellectual property and other rights. Our strategies of capitalizing on growing international demand as well as developing new innovative products across multiple business lines present similar infringement claim risks both internationally and in the U.S. as we expand the scope of our product offerings and markets. We compete with other companies for contracts in some small or specialized industries, which increase the risk that the other companies will develop overlapping technologies leading to an increased possibility that infringement claims will arise. Whether or not these claims have merit, we may be subject to costly and time-consuming legal proceedings, and this could divert management's attention from operating our business. In order to resolve such proceedings, we may need to obtain licenses from these third parties or substantially re-engineer or rename our products in order to avoid infringement. In addition, we might not be able to obtain the necessary licenses on acceptable terms, or at all, or be able to re-engineer or rename our products successfully.

We commercially, in co-branding with Fortis Healthcare, bank and store private cord blood stem cells in our TotipotentRX GMP facility. We could be subject to unexpected litigation costs or damages for loss of one or more family owned units of cord blood or if one of the cord blood units we store causes bodily injury.

We face an inherent business risk of exposure to product liability claims if our products or product candidates are alleged or found to have caused injury, or cannot be used for some reason within our control and are found to result in

injury or death. While we believe that our current liability insurance coverage is adequate for our present clinical and commercial activities, we may not be able to maintain insurance on acceptable terms or at all. If we are unable to obtain insurance or any claims against us substantially exceed our coverage, then our business could be adversely impacted.

If our cord blood processing and storage facility in Gurgaon, India is damaged or destroyed, our business, programs and prospects could be negatively affected.

We process and store our customers' umbilical cord blood at our facility within Fortis Memorial Research Institute (a hospital) in Gurgaon, India. If this facility or the equipment in the facility were to be significantly damaged or destroyed, we could suffer a loss of some or all of the stored cord blood units. Depending on the extent of loss, such an event could reduce our ability to provide cord blood stem cells when requested, could expose us to significant liability from our cord blood banking customers and could affect our ability to continue to provide umbilical cord blood preservation services.

We may not be able to protect our intellectual property in countries outside the United States.

Intellectual property law outside the United States is uncertain and in many countries is currently undergoing review and revisions. The laws of some countries do not protect our patent and other intellectual property rights to the same extent as United States laws. This is particularly relevant to us as a significant amount of our current and projected future sales are outside of the United States. Third parties may attempt to oppose the issuance of patents to us in foreign countries by initiating opposition proceedings. Opposition proceedings against any of our patent filings in a foreign country could have an adverse effect on our corresponding patents that are issued or pending in the United States. It may be necessary or useful for us to participate in proceedings to determine the validity of our patents or our competitors' patents that have been issued in countries other than the U.S. This could result in substantial costs, divert our efforts and attention from other aspects of our business, and could have a material adverse effect on our results of operations and financial condition.

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Any failure to achieve and maintain the high design and manufacturing standards that our products require may seriously harm our business.

Our products require precise, high-quality manufacturing. Achieving precision and quality control requires skill and diligence by our personnel as well as our vendors. Our failure to achieve and maintain these high manufacturing standards, including the incidence of manufacturing errors, design defects or component failures could result in patient injury or death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could seriously hurt our business. Additionally, the large amount of AXP[®] disposable inventory certain distributors and end-users maintain may delay the identification of a manufacturing error and expand the financial impact. A manufacturing error or defect, or previously undetected design defect, or uncorrected impurity or variation in a raw material component, either unknown or undetected, could affect the product. Despite our very high manufacturing standards, we cannot completely eliminate the risk of errors, defects or failures. If we or our vendors are unable to manufacture our products in accordance with necessary quality standards, our business and results of operations may be negatively affected.

Our revenues and operating results may be adversely affected as a result of our required compliance with the adopted EU directive on the restriction of the use of hazardous substances in electrical and electronic equipment, as well as other standards around the world.

A number of domestic and foreign jurisdictions seek to restrict the use of various substances, a number of which have been or are currently used in our products or processes. For example, the EU Restriction of Hazardous Substances in Electrical and Electronic Equipment, or RoHS, Directive now requires that certain substances, which may be found in certain products we have manufactured in the past, be removed from all electronics components. Other countries, such as China, have enacted or may enact laws or regulations similar to RoHS. Eliminating such substances from our manufacturing processes requires the expenditure of additional research and development funds to seek alternative substances for our products, as well as increased testing by third parties to ensure the quality of our products and compliance with the RoHS Directive. While we have implemented a compliance program to ensure our product offerings meet these regulations, there may be instances where alternative substances will not be available or commercially feasible, or may only be available from a single source, or may be significantly more expensive than their restricted counterparts. Therefore, we have focused our compliance efforts on those products and geographical areas in which we have the highest revenue potential. Our failure to comply with past, present and future similar laws could result in reduced sales of our products, substantial product inventory write-offs, reputation damage, penalties and other sanctions, any of which could harm our business and operating results.

Compliance with government regulations regarding the use of “conflict minerals” may result in additional expense and affect our operations.

In August 2012, the SEC adopted disclosure requirements related to certain minerals sourced from the Democratic Republic of Congo or adjoining countries, as required by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The rule requires us to perform due diligence, and report whether “conflict minerals,” which are defined as tin, tantalum, tungsten and gold, necessary to the functionality of a product we purchase originated from the Democratic Republic of Congo or an adjoining country. We are required to file disclosure reports on Form SD with the SEC regarding such matters, and we will be required to prepare and file such a report on an annual basis in the future. We may incur significant costs to determine the source and custody of conflict minerals that are used in the manufacture of our products in order to comply with these regulatory requirements. We may also face reputational challenges if we are unable to verify the origins for all conflict minerals used in our products, or if we are unable to conclude that our products are “conflict free.” Over time, conflict minerals reporting requirements may affect the sourcing, price and availability of our products, and may affect the availability and price of conflict minerals that are certified as conflict free. Accordingly, we may incur significant costs as a consequence of regulations related to conflict-free minerals, which may adversely affect our business, financial condition or results of operations.

Our products may be subject to product recalls which may harm our reputation and divert our managerial and financial resources.

The FDA and similar governmental authorities in other countries have the authority to order the mandatory recall of our products or order their removal from the market if the governmental entity finds our products might cause adverse health consequences or death. The FDA may also seize product or prevent further distribution. A government-mandated or voluntary recall by us could occur as a result of component failures, manufacturing errors or design defects (including labeling defects). In the past we have initiated voluntary recalls of some of our products and we could do so in the future. Any recall of our products may harm our reputation with customers, divert managerial and financial resources and negatively impact our profitability.

We are dependent on our suppliers and manufacturers to meet existing regulations.

Certain of our suppliers and manufacturers are subject to heavy government regulations, including FDA QSR compliance, in the operation of their facilities, products and manufacturing processes. Any adverse action by the FDA against our suppliers or manufacturers could delay supply or manufacture of component products required to be integrated or sold with our products. Although we attempt to mitigate this risk through inventory held directly or through distributors, and audit our suppliers, there are no assurances we will be successful in identifying issues early enough to allow for corrective action or transition to an alternative supplier, or in locating an alternative supplier or manufacturer to meet product shipment or launch deadlines. As a result, our sales, contractual commitments and financial forecasts may be significantly affected by any such delays.

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Dependence on suppliers for disposable products and custom components may impact the production schedule.

We obtain certain disposable products and custom components from a limited number of suppliers. If the supplier raises the price or discontinues production, we may have to find another qualified supplier to provide the item or re-engineer the item. In the event that it becomes necessary for us to find another supplier, we would first be required to qualify the quality assurance systems and product quality of that alternative supplier. Any operational issues with re-engineering or the alternative qualified supplier may impact the production schedule, therefore delaying revenues, and this may cause the cost of disposables or key components to increase.

Failure to meet the financial covenant in our technology license and escrow agreement could decrease our AXP® revenues.

Under our license and escrow agreement with Cord Blood Registry, or CBR, if we fail to meet the financial covenant (of cash balance and short-term investments net of debt or borrowed funds that are payable within one year of not less than \$2 million) that must be maintained, they may take possession of the escrowed intellectual property and initiate manufacturing of the applicable device and disposables. If this were to occur, our revenues would be negatively impacted. In order to remain compliant we may have to do additional financings or provide consideration to the counter party to modify the obligations.

Failure to retain or hire key personnel may adversely affect our ability to sustain or grow our business.

Our ability to operate successfully and manage our potential future growth depends significantly upon retaining key research, technical, clinical, regulatory, sales, marketing and managerial personnel. Our future success partially depends upon the continued services of key technical and senior management personnel. Our future success also depends on our continuing ability to attract, retain and motivate highly qualified managerial and technical personnel. The inability to retain or attract qualified personnel could have a significant negative effect upon our efforts and thereby materially harm our business and future financial condition.

Most of our operations are conducted at a single location. Any disruption at our facilities could delay revenues or increase our expenses.

Our U.S. device operations are conducted at a single location although we contract the manufacturing of certain devices, disposables and components. We take precautions to safeguard our facilities, through insurance, health and

safety protocols, and off-site storage of computer data. However, a natural disaster, such as a fire, flood or earthquake, could cause substantial delays in our operations, damage or destroy our manufacturing equipment or inventory, and cause us to incur additional expenses. The insurance we maintain against fires, floods, and other natural disasters may not be adequate to cover our losses in any particular case.

Failure to maintain and/or upgrade our information technology systems may have an adverse effect on our operations.

We rely on various information technology systems to manage our operations, and we evaluate these systems against our current and expected requirements. Although we have no current plans to implement modifications or upgrades to our systems, we will eventually be required to make changes to legacy systems and acquire new systems with new functionality. Any information technology system disruptions, if not anticipated and appropriately mitigated, could have an adverse effect on our business and operations.

We are a smaller reporting company, and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors.

We are currently a “smaller reporting company,” meaning that we have a public float of less than \$75 million. As long as we are considered a smaller reporting company, we are permitted to provide simplified executive compensation and other disclosures in our SEC filings, we will be exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that an independent registered public accounting firm provide an attestation report on the effectiveness of our internal control over financial reporting, and our disclosure obligations in SEC filings will be limited in certain other respects, including, among other things, that we are only required to provide two years of audited financial statements in annual reports. Such limited disclosures in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.

If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, our ability to operate our business and investors’ views of us.

We are required to establish and maintain adequate internal control over financial reporting, which are processes designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. We are also required to comply with Section 404 of the Sarbanes-Oxley Act of 2002, which requires public companies to conduct an annual review and evaluation of their internal control over financial reporting and to obtain attestations of the effectiveness of internal controls by independent auditors. However, as a “smaller reporting company,” we are not required to obtain an auditor attestation. If, in the future, we require an attestation report from our independent registered public accounting firm and that firm is unable to provide an unqualified attestation report on the effectiveness of our internal controls over financial reporting, investor confidence and, in turn, our stock price could

be materially adversely affected.

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Risks Related to our Industry

Our business is heavily regulated, resulting in increased costs of operations and delays in product sales.

Many of our products require FDA approval or clearance to sell in the U.S. and will require approvals from comparable agencies to sell in foreign countries. These authorizations may limit the U.S. or foreign markets in which our products may be sold. Further, our products must be manufactured under requirements of our quality system for continued CE-Marking so they can continue to be marketed and sold in Europe. These requirements are similar to the QSR of both the FDA and California Department of Public Health. Failure to comply with or incorrectly interpret these quality system requirements and regulations may subject us to delays in production while we correct deficiencies found by the FDA, the State of California, or our notifying body as a result of any audit of our quality system. If we are found to be out of compliance, we could receive a Warning Letter or an untitled letter from the FDA or even be temporarily shut down in manufacturing and product sales while the non-conformances are rectified. Also, we may have to recall products and temporarily cease their manufacture and distribution, which would increase our costs and reduce our revenues. The FDA may also invalidate our PMA or 510(k) if appropriate regulations relative to the PMA or 510(k) product are not met. The notified bodies may elect to not renew CE-Mark certification. Any of these events would negatively impact our revenues and costs of operations.

Changes in governmental regulations may reduce demand for our products or increase our expenses.

We compete in many markets in which we and our customers must comply with federal, state, local and international regulations, such as environmental, health and safety and food and drug regulations. We develop, configure and market our products to meet customer needs created by those regulations. Any significant change in regulations could reduce demand for our products or increase our expenses. For example, many of our instruments are marketed to the industry for enabling new regenerative therapies. Changes in the FDA's regulation of the devices and products directed at regenerative medicine, and development process for new therapeutic applications could have an adverse effect on the demand for these products.

To sell in international markets, we will be subject to regulation in foreign countries.

In cooperation with our distribution partners, we intend to market our current and future products both domestically and in many foreign markets. A number of risks are inherent in international transactions. In order for us to market our products in certain non-U.S. jurisdictions, we need to obtain and maintain required regulatory approvals or clearances and must comply with extensive regulations regarding safety, manufacturing processes and quality. These regulations, including the requirements for approvals or clearances to market, may differ from the FDA regulatory scheme.

International sales also may be limited or disrupted by political instability, price controls, trade restrictions and changes in tariffs. Additionally, fluctuations in currency exchange rates may adversely affect demand for our products by increasing the price of our products in the currency of the countries in which the products are sold.

There can be no assurance that we will obtain regulatory approvals or clearances in all of the countries where we intend to market our products, or that we will not incur significant costs in obtaining or maintaining foreign regulatory approvals or clearances, or that we will be able to successfully commercialize current or future products in various foreign markets. Delays in receipt of approvals or clearances to market our products in foreign countries, failure to receive such approvals or clearances or the future loss of previously received approvals or clearances could have a substantial negative effect on our results of operations and financial condition.

To operate in foreign jurisdictions, we are subject to regulation by non-U.S. authorities.

We have operations in India, and as such are subject to Indian regulatory agencies. A number of risks are inherent in conducting business and clinical operations overseas. In order for us to operate as a majority owned foreign corporation in India, we are subject to financial regulations imposed by the Reserve Bank of India. This includes the rules specific to the capital funding, pledging of assets, repatriation of funds and payment of dividends from and to the foreign subsidiaries and from and to us in the U.S.

In order for us to manufacture and/or market our services and products in India, we need to obtain and maintain required regulatory approvals or clearances and must comply with extensive regulations regarding safety, manufacturing processes and quality. These regulations, including the requirements for approvals or clearances to market, and/or export may differ from the FDA regulatory scheme. Additionally, in order for us to complete clinical trials, clinical trial services and cell banking in India, and other foreign jurisdictions, we need to obtain and maintain approvals and licenses which comply with extensive regulations of the appropriate regulatory body.

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International operations also may be limited or disrupted by political, economic or social instability, price controls, trade restrictions and changes in tariffs as ordered by various governmental agencies. Additionally, fluctuations in currency exchange rates may adversely affect the cost of production for our products by increasing the price of materials and other inputs for our products in the currency of the countries in which the products are sold.

If our competitors develop and market products that are more effective than our product candidates or obtain regulatory and market approval for similar products before we do, our commercial opportunity may be reduced or eliminated.

The development and commercialization of new pharmaceutical products which target cardiovascular, orthopedic, chronic dermal wounds and other conditions addressed by our current and future products is competitive, and we will face competition from numerous sources, including major biotechnology and pharmaceutical companies worldwide. Many of our competitors have substantially greater financial and technical resources, and development, production and marketing capabilities than we do. In addition, many of these companies have more experience than we do in pre-clinical testing, clinical trials and manufacturing of compounds, as well as in obtaining FDA and foreign regulatory approvals. As a result, there is a risk that one of the competitors will develop a more effective product for the same indications for which we are developing a product or, alternatively, bring a similar product to market before we can. With regards to the BioArchive® and AXP® Systems, numerous larger and better-financed medical device manufacturers may choose to enter this market as it develops.

Influence by the government and insurance companies may adversely impact sales of our products.

Our business may be materially affected by continuing efforts by government, and third-party payers such as Medicare, Medicaid, and private health insurance plans, to reduce the costs of healthcare. For example, in certain foreign markets the pricing and profit margins of certain healthcare products are subject to government controls. In addition, increasing emphasis on managed care in the U.S. will continue to place pressure on the pricing of healthcare products. As a result, continuing efforts to contain healthcare costs may result in reduced sales or price reductions for our products. To date, we are not aware of any direct impact on our pricing or product sales due to such efforts by governments to contain healthcare costs, and we do not anticipate any impact in the near future.

Product liability and uninsured risks may adversely affect the continuing operations.

We operate in an industry susceptible to significant product liability claims. We may be liable if any of our products cause injury, illness, or death. These claims may be brought by individuals seeking relief or by groups seeking to represent a class. We also may be required to recall certain of our products should they become damaged or if they are

defective. We are not aware of any material product liability claims against us. However, product liability claims may be asserted against us in the future based on events we are not aware of at the present time. We maintain a product liability policy and a general liability policy that includes product liability coverage. However, a product liability claim against us could have a material adverse effect on our business or future financial condition.

We commercially process stem cells under a physician's order for use in clinical applications in India.

Our GMP laboratory within Fortis Memorial Research Institute in Gurgaon, India, processes stem cells for certain uses under a physician's order, and we charge for these services. This service is primarily focused on our growing initiative in bone marrow transplant. We could face product or service liability claim(s) for a bodily injury asserted by a claimant as a result from our GMP services. We mitigate our risks by adhering to international standards, maintain international certification by BSI to GMP, are U.S FDA registered for such activities and are inspected by the Drugs Controller General of India. We believe our global liability insurance is sufficient to cover claims, but in the event it is not it could materially impact our financial health.

Risks Related to Operating Results and Financial Markets

There is doubt about our ability to continue as a going concern due to our recurring and expected operating losses and cash balance which means that we may not be able to continue operations.

We cannot provide investors with the assurance that we will be able to raise sufficient funds from the generation of revenues or through financing to sustain the Company over the next twelve months. Given our cash balance and the fact that we have had recurring operating losses and expect those losses to continue, we believe there is substantial doubt about our ability to continue as a going concern.

We have incurred net losses and losses will continue.

We have not been profitable for a significant period. For the fiscal years ended June 30, 2016 and 2015, we had a net loss of approximately \$18.59 million and \$14.85 million respectively and an accumulated deficit at June 30, 2016, of approximately \$156.26 million. For the three months ended September 30, 2016 we had a net loss of \$22.4 million and an accumulated deficit of \$178.7 million. We will continue to incur significant costs as we develop and market our current products and related applications. Although we are executing our business plan to develop, market and launch new products, continuing losses may impair our ability to fully meet our objectives for new product sales or threaten our ability to continue as a going concern in future years.

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We will need to raise additional capital to fund our operations and in furtherance of our business plan.

We will need to raise additional capital in the near future to fund our future operations and in furtherance of our business plan, including progression of the CLI and Acute Myocardial Infarction Rapid Stem Cell Therapy, or AMIRST, clinical trials and development of other new products. The proposed financing may include shares of common stock, shares of preferred stock, warrants to purchase shares of common stock or preferred stock, debt securities, units consisting of the forgoing securities, equity investments from strategic development partners or some combination of each. Any additional equity financings may be financially dilutive to, and will be dilutive from an ownership perspective to our stockholders, and such dilution may be significant based upon the size of such financing. Additionally, we cannot assure that such funding will be available on a timely basis, in needed quantities, or on terms favorable to us, if at all.

Our future financial results could be adversely impacted by asset impairment charges.

We are required to test both goodwill and intangible assets for impairment on an annual basis. We have chosen to perform our annual impairment reviews of goodwill and other intangible assets during the fourth quarter of each fiscal year. We also are required to test for impairment between annual tests if events occur or circumstances change that would more likely than not reduce our fair value below book value. These events or circumstances could include results of our on-going clinical trials, activities and results of our competitor's clinical trials, a significant change in the regulatory climate, legal factors, operating performance indicators, or other factors. If the fair market value is less than the book value, we could be required to record an impairment charge. The valuation requires judgment in estimating future cash flows, discount rates and estimated product life cycles. In making these judgments, we evaluate the financial health of the business, including such factors as industry performance, changes in technology and operating cash flows.

As of September 30, 2016 we have a goodwill balance of approximately \$13.20 million and a net intangible assets balance of approximately \$20.7 million, out of total assets of approximately \$49.2 million. As a result, the amount of any annual or interim impairment could be significant and could have a material adverse effect on our reported financial results for the period in which the charge is taken.

We may incur significant non-operating, non-cash charges resulting from changes in the fair value of warrants.

Our Series A warrants are a derivative instrument; as such, they have been recorded at their respective relative fair values at the issuance date and will be recorded at their respective fair values at each subsequent balance sheet date. Any change in value between reporting periods will be recorded as a non-operating, non-cash charge at each reporting

date. The impact of these non-operating, non-cash charges could have an adverse effect on the Company's financial results. The fair value of the warrants is tied in large part to our stock price. If the stock price increases between reporting periods, the warrants become more valuable. As such, there is no way to forecast what the non-operating, non-cash charges will be in the future or what the future impact will be on our financial statements.

Risks Related to our Common Stock

If the price of our common stock does not meet the requirements of the Nasdaq Capital Market, our shares may be delisted. Our ability to publicly or privately sell equity securities and the liquidity of our common stock could be adversely affected if we are delisted.

The listing standards of the Nasdaq Capital Market provide, among other things, that a company may be delisted if the bid price of its stock drops below \$1.00 for a period of 30 consecutive business days. Delisting from the Nasdaq Capital Market could adversely affect our ability to raise additional financing through the public or private sale of equity securities, would significantly affect the ability of investors to trade our securities and would negatively affect the value and liquidity of our common stock. Delisting could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest and fewer business development opportunities.

Liquidity of our common stock.

Although there is a public market for our common stock, trading volume has been historically low, which could impact the stock price and the ability to sell shares of our common stock. We can give no assurance that an active and liquid public market for the shares of the common stock will continue in the future. In addition, future sales of large amounts of common stock could adversely affect the market price of our common stock and our ability to raise capital. The price of our common stock could also drop as a result of the exercise of options for common stock or the perception that such sales or exercise of options could occur. These factors could also have a negative impact on the liquidity of our common stock and our ability to raise funds through future stock offerings.

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We do not pay cash dividends.

We have never paid any cash dividends on our common stock and may not pay cash dividends in the future. Instead, we intend to apply earnings to the expansion and development of our business. Thus, the liquidity of your investment is dependent upon your ability to sell stock at an acceptable price. The price can go down as well as up and may limit your ability to realize any value from your investment, including the initial purchase price.

Our stock price is volatile.

The market price of our common stock has been, and we expect will continue to be, subject to significant volatility. The value of our common stock may decline regardless of our operating performance or prospects. Factors affecting our market price include:

- our perceived prospects and liquidity;
- progress or any lack of progress (or perceptions related to progress) in timely overcoming the remaining substantial technical and commercial challenges related to our product candidates;
- variations in our operating results and whether we have achieved key business targets;
- changes in, or our failure to meet, earnings estimates;
- changes in securities analysts' buy/sell recommendations;
- differences between our reported results and those expected by investors and securities analysts;
- market reaction to any acquisitions, joint ventures or strategic investments announced by us or our competitors; and
- general economic, political or stock market conditions.

The general economic, political and stock market conditions that may affect the market price of our common stock are beyond our control. The market price of our common stock at any particular time may not remain the market price in the future.

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Risks Related to this Offering

We have broad discretion in the use of the net proceeds of this offering, if any, and may not use them effectively.

We will not receive any of the proceeds from the sale of the Shares by the Selling Stockholders, except for payment of any cash exercise price upon exercise of the Series A Warrants. See “Use of Proceeds” on page 15 of this prospectus.

We intend to use the net proceeds from this offering, if any, for general corporate purposes. However, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our securities. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our securities to decline and delay the development of our product candidates. Pending the application of these funds, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

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USE OF PROCEEDS

The Shares offered by this prospectus will be sold by the Selling Stockholders. We will not receive any of the proceeds from the sale of the Shares by the Selling Stockholders named in this prospectus, except for payment of any cash exercise price upon exercise of the Series A Warrants, which amounts, if any, will be used for general corporate purposes.

DESCRIPTION OF SECURITIES

As of January 19, 2017, our amended and restated certificate of incorporation authorizes the issuance of up to 350,000,000 shares of common stock, par value \$0.001 per share, and 2,000,000 shares of preferred stock, par value \$0.001 per share.

Common Stock

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, except matters that relate only to one or more of the series of preferred stock, and each holder does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose.

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Holders of common stock have no preemptive or conversion rights or other subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and the shares of common stock offered by us in this offering, when issued and paid for, will be fully paid and non-assessable. The rights, preferences, and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

Under the terms of our amended and restated certificate of incorporation, we may issue preferred stock with the rights, preferences and privileges may be established from time to time by our board of directors.

Series A Warrants

On August 31, 2015, we entered into a securities purchase agreement (the “Purchase Agreement”) with certain of the Selling Stockholders, each of which were institutional accredited investors. Pursuant to the terms of the Purchase Agreement, we sold certain of the Selling Stockholders, among other securities, the Series A Warrants to purchase up to an aggregate of 1,102,940 shares of Common Stock at an exercise price originally equal to \$13.60 per share. The number of shares of Common Stock for which the Series A Warrants are exercisable is subject to vesting, and only 404,410 shares of Common Stock have and will vest. On February 16, 2016, we entered into an amendment to the Series A Warrants with each of the Selling Stockholders pursuant to which the exercise price per share was reduced from \$13.60 per share to \$8.00 per share. The Series A Warrants currently entitle the holders to purchase, in the aggregate, up to 404,410 shares of Common Stock at an exercise price of \$8.00 per share for a period of five and one-half years. The exercise price of the Series A Warrants is subject to adjustment for stock splits, stock dividends, combinations or similar events. The Series A Warrants may be exercised for cash or, upon the failure to maintain an effective registration statement, on a cashless basis. The exercise of the Series A Warrants is subject to a beneficial ownership limitation, pursuant to which the holder may not exercise for shares if the exercise would cause them to hold more than 9.99% of the number of shares of the Common Stock outstanding upon exercise.

Warrants

In addition to the Series A Warrants, we have issued in private and public offerings warrants to purchase:

83,420 shares of common stock at \$56.20 per share, which expire on January 29, 2019;

112,950 shares of common stock at \$31 per share, which expire on June 18, 2019; and

3,529,412 shares of common stock at \$8.00 per share, which expire on February 13, 2021.

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Effect of Certain Provisions of Our Amended and Restated Certificate of Incorporation and Bylaws

Amended and Restated Certificate of Incorporation and Bylaws

Some provisions of Delaware law and our amended and restated certificate of incorporation and bylaws contain provisions that could make the following transactions more difficult:

acquisition of us by means of a tender offer;

acquisition of us by means of a proxy contest or otherwise; or

removal of our incumbent officers and directors.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids and to promote stability in our management. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors.

Undesignated Preferred Stock. The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue one or more series of preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Stockholder Meetings. Our bylaws provide that a special meeting of stockholders may be called only by the Chief Executive Officer or by the board of directors or the Chairman of the Board or by one or more shareholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

Requirements for Advance Notification of Stockholder Nominations and Proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of the board of directors.

Board of Directors Vacancies. Under our bylaws, any vacancy on the board of directors, including a vacancy resulting from an enlargement of the board of directors, may only be filled by vote of a majority of the remaining directors. The classification of the board of directors and the limitations on the removal of directors and filling of

vacancies would have the effect of making it more difficult for a third party to acquire control of us, or of discouraging a third party from acquiring control of us.

Board of Directors Size. Under our bylaws, the board of directors has the power to set the size of the board. The ability to increase or decrease the size of the board in conjunction with the other provisions above could make it more difficult for a third party to acquire control of the Company.

Limitation of Liability

The Delaware General Corporation Law (“DGCL”) permits Delaware corporations to eliminate or limit the monetary liability of directors for breach of their fiduciary duty of care, subject to limitations. Our amended and restated certificate of incorporation provides that our directors shall not be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption or limitation thereof is not permitted under the DGCL as the same exists or may hereafter be amended.

The DGCL provides for indemnification of directors, officers, employees and agents, subject to limitations. Both our amended and restated certificate of incorporation and bylaws provide for the indemnification of our directors, officers, employees and agents to the fullest extent permitted by Delaware law. Our directors and officers also are insured against certain liabilities for actions taken in such capacities, including liabilities under the Securities Act.

Section 145(a) of the DGCL provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person 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 or enterprise, against expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, if such person had no cause to believe the conduct was unlawful.

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Section 145(b) of the DGCL provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted under similar standards to those set forth above, except that no indemnification may be made in respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the court in which such action or suit was brought shall determine that despite the adjudication of liability, but in view of all the circumstances of the case, such person is fairly and reasonably entitled to be indemnified for such expenses which the court shall deem proper.

Section 145 of the DGCL further provides that to the extent a director or officer of a corporation has been successful in the defense of any action, suit or proceeding referred to in subsection (a) and (b) or in the defense of any claim, issue or matter therein, such person shall be indemnified against expenses actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and that the corporation may purchase and maintain insurance on behalf of a director or officer of the corporation against any liability asserted against such officer or director and incurred by such person in any such capacity or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

As permitted by Section 102(b)(7) of the DGCL, our amended and restated certificate of incorporation provides that none of our directors shall be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director. However, this provision does not eliminate or limit the liability of a director for acts or omissions not in good faith or for breaching such person's duty of loyalty, engaging in intentional misconduct or knowingly violating the law, paying a dividend or approving a stock repurchase which was illegal, or obtaining an improper personal benefit. A provision of this type has no effect on the availability of equitable remedies, such as injunction or rescission, for breach of fiduciary duty.

We have a policy of directors' liability insurance that insures the directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

We believe that the foregoing policies and provisions of our amended and restated certificate of incorporation and bylaws are necessary to attract and retain qualified officers and directors. Insofar as indemnification for liabilities arising under the Securities Act may be permitted with respect to our directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has 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.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Investor Services, LLC, 350 Indiana Street, Suite 750, Golden, CO 80401.

Table Of Contents**SELLING STOCKHOLDERS**

The following table sets forth the number of shares of our Common Stock beneficially owned by the Selling Stockholders as of January 13, 2017. The percentages shown in the table are based on 9,886,402 shares of Common Stock outstanding on that date. Shares of Common Stock subject to options, warrants or other convertible securities which are exercisable within 60 days of January 13, 2017 are deemed to be beneficially owned by the person holding such options, warrants or other convertible securities for the purpose of computing the percentage of ownership of such person but are not treated as outstanding for the purpose of computing the percentage of any other person. Except as described in the preceding sentence, shares of Common Stock issuable upon exercise of outstanding options, warrants and other convertible securities are not deemed to be outstanding.

The following table assumes that the Selling Stockholders sell all the Shares offered by them under this prospectus and sell none of the other shares of our Common Stock owned by the Selling Stockholders, if any. We cannot estimate the number of shares of Common Stock that will be held by the Selling Stockholders after completion of this offering because the Selling Stockholders may sell all or some of the Shares and because there currently are no agreements, arrangements or understandings with respect to the sale of any of the Shares. The term "Selling Stockholders" includes the stockholders listed below and their respective transferees, assignees, pledgees, donees or other successors. The Selling Stockholders reserve the right to accept or reject, in whole or in part, any proposed sale of Shares. The Selling Stockholders also may offer and sell less than the number of Shares indicated. The Selling Stockholders are not making any representation that any Shares covered by this prospectus will or will not be offered for sale. Except as indicated below in this section or in the documents incorporated by reference in this prospectus, we are not aware of any material relationship between us and the Selling Stockholders within the past three years other than as a result of the Selling Stockholders' beneficial ownership of our Common Stock.

| Selling Stockholders | Number of Shares | | Percent | Maximum Number Offered by Selling Stockholder | Number of Shares Beneficially Owned After Completion of Offering | | Percent |
|---|--|-----|---------|---|---|---------|---------|
| | Beneficially Owned Prior to the Offering | | | | Owned After Completion of Offering | Percent | |
| Sabby Healthcare Master Fund, Ltd. ⁽¹⁾ | 314,077 | (2) | 3 | % 257,352 | 56,725 | * | % |
| Sabby Volatility Warrant Master Fund, Ltd. ⁽¹⁾ | 185,183 | (2) | 2 | % 147,058 | 38,125 | * | % |
| Boyalife (Hong Kong) Limited ⁽³⁾ | 10,367,647 | (4) | 77 | % 545,590 | 9,822,057 | 68 | % |

*Less than 1%.

The address for each of Sabby Healthcare Master Fund, Ltd. and Sabby Volatility Warrant Master Fund, Ltd. is c/o Sabby Management, 10 Mountainview Road, Suite 205, Upper Saddle River, New Jersey 07458. Sabby Management, LLC is the investment manager of Sabby Healthcare Master Fund, Ltd. and Sabby Volatility Warrant Master Fund, Ltd. and shares voting and investment power with respect to these shares in this capacity. As manager of Sabby Management, LLC, Hal Mintz also shares voting and investment power on behalf of each selling stockholder. Each of Sabby Management, LLC and Hal Mintz disclaims beneficial ownership over the securities listed except to the extent of their pecuniary interest therein.

(2) Consists of warrants exercisable as of January 13, 2017 (including the Series A Warrants), and represents the number of shares of Common Stock assuming the exercise of all such warrants.

The address for Boyalife (Hong Kong) Limited. is c/o Boyalife Group, Ltd., 800 Jiefang Road East, Wuxi City, China, F4 214002. Yishu Li has voting and investment power over the Note Shares being registered on behalf of (3) Boyalife (Hong Kong) Limited. Yishu Li is the spouse of Dr. Xiachun Xu, our interim CEO and chairman of our board of directors. Each of Yishu Li and Dr. Xiachun Xu disclaims beneficial ownership over the securities listed except to the extent of their pecuniary interest therein.

Consists of 6,838,235 shares of Common Stock (including the Note Shares) and 3,529,412 shares of Common (4) Stock issuable upon exercise of warrants, and represents the number of shares of Common Stock assuming the exercise of all such warrants.

Relationship with Selling Stockholders

Other than as a shareholder of the Company, neither Sabby Healthcare Master Fund, Ltd. nor Sabby Volatility Warrant Master Fund, Ltd. has had a relationship with us within the past three years.

Ms. Yishu Li is the sole stockholder of Boyalife (Hong Kong) Limited. Ms. Li is the spouse of Dr. Xiaochun Xu, our interim Chief Executive Officer and Chairman of the Board. Pursuant to the terms of the Voting Agreement between the Company, Boyalife (Hong Kong) Limited and Boyalife Investment, Inc., Boyalife (Hong Kong) Limited and Boyalife Investment Inc. have the right to nominate up to three members of the Company's Board of Directors until such time as they no longer collectively hold at least 50% of our common stock. On December 26, 2016, Boyalife (Hong Kong) Limited acquired all the shares of common stock and warrants to purchase shares of the Company's common stock owned by Boyalife Investment Inc.

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PLAN OF DISTRIBUTION

We are registering the Shares issuable upon the exercise of the Series A Warrants for possible sale by the Selling Stockholders.

Each Selling Stockholder of the Shares and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their Shares covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the Common Stock is traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling the Shares:

- ordinary brokerage transactions and transactions in which the broker dealer solicits purchasers;
- block trades in which the broker dealer will attempt to sell the securities 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;
- settlement of short sales;
- in transactions through broker dealers that agree with the Selling Stockholders to sell a specified number of such Shares at a stipulated price per Share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"), if available, rather than under this prospectus.

Broker dealers engaged by the Selling Stockholders may arrange for other broker dealers to participate in sales. Broker dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the Shares or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the Shares in the course of hedging the positions they assume. The Selling Stockholders may also sell Shares short and deliver these Shares to close out their short positions, or loan or pledge the Shares to broker-dealers that in turn may sell these Shares. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of Shares offered by this Prospectus, which Shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the Shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the Shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the Shares.

We have not agreed to keep this prospectus effective for any minimum period of time. The Shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the Shares covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the Shares may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

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LEGAL MATTERS

The validity of the shares of our common stock offered hereby have been passed upon for us by Dorsey & Whitney LLP, Palo Alto, CA.

EXPERTS

Our consolidated financial statements as of June 30, 2016 and 2015 and for the years then ended, incorporated in this prospectus by reference to our Annual Report on Form 10-K for the year ended June 30, 2016, have been so incorporated in reliance on the report of Marcum LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

INTERESTS OF NAMED EXPERTS AND COUNSEL

No expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the securities was employed for such purpose on a contingent basis, or had, or is to receive, in connection with the offering, a substantial interest, direct or indirect, in the Company. Nor was any such person connected with the Company as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at its Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our filings with the SEC are also available to the public at its web site at <http://www.sec.gov/>.

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC. Pursuant to the SEC rules, this prospectus, which forms a part of the registration statement, does not contain all of the information in the registration statement. You may read or obtain a copy of the registration statement from the SEC in the manner

described above.

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. The following documents, which have been filed with the SEC pursuant to the Exchange Act, are incorporated by reference:

our Annual Report on Form 10-K for the year ended June 30, 2016, filed on September 21, 2016, and amendment thereto on Form 10-K/A filed on October 28, 2016;

our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed on November 17, 2016;

our Current Reports on Form 8-K filed on July 12, 2016, August 1, 2016, August 4, 2016 (other than information and exhibits furnished under Item 7.01), August 25, 2016 (other than information and exhibits furnished under Item 7.01), September 26, 2016, November 9, 2016, November 22, 2016, December 20, 2016 and January 17, 2017, and our Current Report on Form 8-K/A filed on November 17, 2016; and

The description of securities in Item 1 of the Registration Statement on Form 8-A for registration of our Common Stock filed on November 17, 1987 pursuant to Section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

In addition, we incorporate by reference all reports and other documents that we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, (a) after the initial filing date of the registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement and (b) after the effectiveness of the registration statement and prior to the termination of this offering, and all such reports and documents will be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such reports and documents (except for information and exhibits furnished under Items 2.02 or 7.01 of our current reports on Forms 8-K or 8-K/A). Any document or statement incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such document or statement. Any document or statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request of such person, a copy of any or all of the foregoing documents incorporated herein by reference. Requests for documents should be submitted to Cesca Therapeutics Inc., 2711 Citrus Road, Rancho Cordova, CA 95742; telephone: (916) 858-5100. Exhibits to the documents will not be sent, unless those exhibits have specifically been incorporated by reference in this prospectus.

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950,000 Shares

Common Stock

PROSPECTUS

JANUARY 20, 2017

You should rely only on the information contained in this prospectus. No dealer, salesperson or other person is authorized to give information that is not contained in this prospectus. This prospectus is not an offer to sell nor is it seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The

information contained in this prospectus is correct only as of the date of this prospectus, regardless of the time of the delivery of this prospectus or any sale of these securities.

Table Of Contents**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the costs and expenses payable by us in connection with the sale and distribution of the Shares being registered hereunder. No expenses shall be borne by the Selling Stockholders. All of the amounts shown are estimates, except for the SEC registration fee.

| | |
|------------------------------|-------------|
| SEC registration fee | \$334.72 |
| Accounting fees and expenses | \$15,000 |
| Legal fees and expenses | \$25,000 |
| Miscellaneous | \$5,000 |
| Total | \$45,334.72 |

Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law permits indemnification of directors, officers and employees of corporations under certain conditions and subject to certain limitations. Our Amended and Restated Certificate of Incorporation contains provisions for the indemnification of our directors and officers to the fullest extent permitted by law.

Under such law, we are empowered to indemnify any person who was or is a party or is threatened to be made a party to any proceeding (other than an action by or in the right of our company to procure a judgment in its favor) by reason of the fact that such person is or was an officer, director, employee or other agent of us, against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with such proceeding if such person acted in good faith and in a manner such person reasonably believed to be in our best interests and, in the case of a criminal proceeding, has no reasonable cause to believe the conduct of such person was unlawful. In addition, we may indemnify, subject to certain exceptions, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action by or in the right of our company to procure a judgment in our favor by reason of the fact that such person is or was an officer, director, employee or other agent of our company, against expenses actually and reasonably incurred by such person in connection with the defense or settlement of such action if such person acted in good faith and in a manner such person believed to be in the best interest of our company and stockholders. We may advance expenses incurred in defending any proceeding prior to final disposition upon receipt of an undertaking by the agent to repay that amount it shall be determined that the agent is not entitled to

indemnification as authorized.

In addition, we have directors' and officers' liability insurance, which our bylaws provide authority to maintain to insure directors or officers against any liability incurred while in capacity as such, or arising out of their status as such.

Item 16. Exhibits.

Exhibit

| No. | Document Description | Incorporation by Reference |
|------|--|---|
| 4.1 | Form of Series A Common Stock Purchase Warrant | Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on September 1, 2015. |
| 4.2 | Form of Series A Warrant Amendment | Incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K filed on February 3, 2016. |
| 5.1 | Opinion of Dorsey & Whitney LLP | Filed herewith. |
| 23.1 | Consent of Marcum LLP, Independent Registered Public Accounting Firm | Filed herewith. |
| 23.2 | Consent of Dorsey & Whitney LLP (included in Exhibit 5.1) | Filed herewith. |
| 24.1 | Power of Attorney | Contained in the signature page hereto. |

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Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement. *Provided, however*, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) If the Registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

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(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act each filing of the registrant's Annual Report under Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference into this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised 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.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Rancho Cordova, State of California, on January 20, 2017.

CESCA THERAPEUTICS INC.

By: /s/ Dr. Xiaochun Xu
Name: Dr. Xiaochun Xu
Title: Interim Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Dr. Xiaochun Xu and Mike Bruch as his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|---------------------|---------------------------------|------------------|
| /s/ Dr. Xiaochun Xu | Interim Chief Executive Officer | January 20, 2017 |

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Dr. Xiaochun Xu and Director (Principal Executive Officer)

/s/ James Xu Director January 20, 2017
James Xu

/s/ Mahendra Rao Director January 20, 2017
Mahendra Rao

/s/ Michael Rhein Director January 20, 2017
Michael Rhein

/s/ Michael Bruch Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) January 20, 2017
Michael Bruch

/s/ Vivian Liu Director January 20, 2017
Vivian Liu

/s/ Joseph Thomis Director January 20, 2017
Joseph Thomis