

CESCA THERAPEUTICS INC.

Form S-1/A

May 14, 2018

As filed with the Securities and Exchange Commission on May 14, 2018.

Registration No. 333-224185

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 2

to

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

CESCA THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Delaware

3821

94-3018487

(State or other jurisdiction of
incorporation or organization)

(Primary Standard Industrial
Classification Code Number)

(I.R.S.
Employer
Identification
No.)

2711 Citrus Road

Rancho Cordova, California 95742

(916) 858-5100

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

Vivian Liu

Chief Operating Officer

2711 Citrus Road

Rancho Cordova, California 95742

(916) 858-5100

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

Copies to:

Curt P. Creely, Esq.

John Wolfel, Esq.

Foley & Lardner LLP

100 North Tampa Street, Suite 2700

Tampa, Florida 33602

Phone: (813) 229-2300

Fax: (813) 221-4210

Jeffrey Fessler, Esq.

Sheppard Mullin Richter & Hampton LLP

30 Rockefeller Plaza, 39th Floor

New York, New York 10112

Phone: (212) 653-8700

Fax: (212) 653-8701

Approximate date of commencement of proposed sale to the public:

As soon as practicable after this Registration Statement is declared effective.

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, as amended, check the following box:

Table of Contents

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price ⁽¹⁾⁽²⁾	Amount of Registration Fee
Units, each Unit consisting of one share of common stock, par value \$0.001 per share and one common warrant to purchase one share of common stock ⁽³⁾	\$ 5,000,000	\$ 622.50
(i) Common stock included in the Units ⁽⁴⁾	—	—

Edgar Filing: CESCA THERAPEUTICS INC. - Form S-1/A

(ii) Common warrants included in the Units ⁽⁴⁾	—	—	
Pre-funded Units, each Pre-funded Unit consisting of one pre-funded warrant to purchase one share of common stock and one common warrant to purchase one share of common stock ⁽³⁾	\$ 5,000,000	\$ 622.50	
(i) Pre-funded warrants included in the Pre-funded Units ⁽⁴⁾	—	—	
(ii) Common warrants included in the Pre-funded Units ⁽⁴⁾	—	—	
Shares of common stock underlying pre-funded warrants included in the Pre-funded Units ⁽³⁾	—	—	
Shares of common stock underlying common warrants included in the Units ⁽³⁾	\$ 5,000,000	\$ 622.50	
Shares of common stock underlying common warrants included in the Pre-funded Units ⁽³⁾	\$ 5,000,000	\$ 622.50	
Total	\$ 20,000,000	\$ 2,490	*

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(o) and 457(g)(2) under the Securities Act of 1933, as amended (the “Securities Act”).

(2) Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of additional securities as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(3) The proposed maximum aggregate offering price of the Units proposed to be sold in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Pre-funded Units offered and sold in the offering, and as such the proposed maximum aggregate offering price of the Units and Pre-funded Units (including the common stock issuable upon exercise of the pre-funded warrants included in the Pre-funded Units), if any, is \$5,000,000.

(4) No additional registration fee is payable pursuant to Rule 457(i) under the Securities Act.

*Registration fee previously paid.

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 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

Table of Contents

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

SUBJECT TO COMPLETION, DATED MAY 14, 2018

PRELIMINARY PROSPECTUS

Up to 4,672,897 Units (each Unit contains One Share of Common Stock and One Common Warrant to Purchase One Share of Common Stock)

Up to 4,672,897 Pre-funded Units (each Pre-funded Unit contains One Pre-funded Warrant to Purchase One Share of Common Stock and One Common Warrant to Purchase One Share of Common Stock)

Shares of Common Stock Underlying the Pre-funded Warrants and

Shares of Common Stock Underlying the Common Warrants

We are offering up to 4,672,897 units, each unit consisting of one share of our common stock and one common warrant to purchase one share of our common stock (together with the shares of common stock underlying such common warrants). Each common warrant contained in a unit will have an exercise price per share equal to \$ _____ per share. The common warrants contained in the units will be exercisable immediately and will expire on the five year anniversary of the original issuance date. We are also offering the shares of our common stock that are issuable from time to time upon exercise of the common warrants contained in the units.

We are also offering the opportunity to purchase, if the purchaser so chooses, up to 4,672,897 pre-funded units to purchasers whose purchase of units in this offering would otherwise result in the purchaser, together with its affiliates

and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering (each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock) in lieu of units that would otherwise result in a purchaser's beneficial ownership exceeding 4.99% of our outstanding common stock (or at the election of the purchaser, 9.99%). Each pre-funded warrant contained in a pre-funded unit will be exercisable for one share of our common stock. The purchase price of each pre-funded unit is equal to the price per unit being sold to the public in this offering, minus \$0.01, and the exercise price of each pre-funded warrant included in the pre-funded unit is \$0.01 per share. The pre-funded warrants expire when exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants contained in the pre-funded units sold in this offering.

For each pre-funded unit we sell, the number of units we are offering will be decreased on a one-for-one basis. Because we will issue a common warrant as part of each unit or pre-funded unit, the number of common warrants sold in this offering will not change as a result of a change in the mix of the units and pre-funded units sold. Each common warrant contained in a pre-funded unit will have an exercise price per share equal to \$ _____ per share. The common warrants contained in the pre-funded units will be exercisable immediately and will expire on the five year anniversary of the original issuance date. We are also offering the shares of our common stock that are issuable from time to time upon exercise of the common warrants contained in the pre-funded units.

The units and the pre-funded units will not be issued or certificated. The shares of common stock or pre-funded warrants, as the case may be, and the common warrants can only be purchased together in this offering but the securities contained in the units or pre-funded units will be issued separately.

Our common stock is listed on the Nasdaq Capital Market under the symbol "KOOL". On May 11, 2018, the closing sale price of our common stock on the Nasdaq Capital Market was \$1.07 per share. The public offering price per unit or pre-funded unit, as the case may be, will be determined between us and the placement agent based on market conditions at the time of pricing, and may be at a discount to the current market price of our common stock. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants will be limited.

You should read carefully this prospectus and any applicable prospectus supplement or free writing prospectus, together with the additional information described in this prospectus under the headings "Incorporation of Certain Information by Reference" and "Where You Can Find More Information," before you invest in any of our securities.

Investing in our securities involves risks. You should carefully read and consider the "Risk Factors" beginning on page 9 of this prospectus before investing. You should also consider the risk factors described or referred to in any documents incorporated by reference in this prospectus, and in any applicable prospectus supplement, before investing in these securities.

Table of Contents

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

We have retained H.C. Wainwright & Co., LLC to act as our exclusive placement agent in connection with this offering, and to use its “best efforts” to solicit offers to purchase the securities being offered pursuant to this prospectus. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth above. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. In addition, because there is no escrow account and no minimum offering amount in this offering, investors could be in a position where they have invested in our Company, but we are unable to fulfill our objectives due to a lack of interest in this offering. Also, any proceeds from the sale of securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan.

	Per Unit	Per Pre-Funded Unit	Total
Public offering price	\$	\$	\$
Placement agent fees ⁽¹⁾	\$	\$	\$
Proceeds, before expenses, to us ⁽²⁾	\$	\$	\$

(1) See “Plan of Distribution” beginning on page 30 for more information on this offering and the placement agent fees and expenses.

(2) We estimate the total expenses of this offering payable by us, excluding the placement agent fee, will be approximately \$225,000. All costs associated with the registration will be borne by us.

Delivery of the securities offered hereby is expected to be made on or about _____, 2018.

H.C. Wainwright & Co.

The date of this prospectus is _____, 2018

Table of Contents**TABLE OF CONTENTS**

	Page
<u>PROSPECTUS SUMMARY</u>	2
<u>THE OFFERING</u>	8
<u>RISK FACTORS</u>	9
<u>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	24
<u>USE OF PROCEEDS</u>	24
<u>CAPITALIZATION</u>	25
<u>DILUTION</u>	26
<u>DESCRIPTION OF SECURITIES WE ARE OFFERING</u>	27
<u>DIVIDEND POLICY</u>	30
<u>PLAN OF DISTRIBUTION</u>	30
<u>LEGAL MATTERS</u>	32
<u>EXPERTS</u>	32
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	33
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	33

Unless the context otherwise requires, references in this prospectus to “we,” “us,” “our” or similar terms, as well as references to “Cesca” or the “Company,” refer to Cesca Therapeutics Inc. and its consolidated subsidiaries. This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission, which we refer to as the SEC or the Commission, utilizing a registration process.

You should rely only on the information contained in this prospectus. We have not, and the placement agent has not, authorized anyone to provide you with any information other than that contained or incorporated by reference in this prospectus or in any applicable prospectus supplement or free writing prospectus prepared by or on behalf of us to which we have referred you. We are offering to sell, and seeking offers to buy, the securities covered hereby only in jurisdictions where offers and sales are permitted. You should not assume that the information contained in this prospectus or any prospectus supplement or free writing prospectus is accurate as of any date other than the date on the front cover of those documents, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates. We are not, and the placement agent is not, making an offer of these securities in any jurisdiction where the offer is not permitted.

For investors outside the United States: We have not, and the placement agent has not, taken any action 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. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby the distribution of this prospectus outside the United States.

We further note that the representations, warranties and covenants made by us in any agreement that is incorporated by reference or filed as an exhibit to the registration statement of which this prospectus is a part 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.

Information contained in, and that can be accessed through, our web site *www.cescatherapeutics.com* shall not be deemed to be part of this prospectus or incorporated herein by reference and should not be relied upon by any prospective investors for the purposes of determining whether to purchase the shares offered hereunder.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus, and does not contain all of the information that you should consider before investing in our securities. You should read this summary together with the entire prospectus, including our financial statements, the notes to those financial statements and the additional information described in this prospectus under the heading “Where You Can Find More Information,” before making an investment decision. See the “Risk Factors” section of this prospectus beginning on page 9 and in the documents incorporated by reference into this prospectus for a discussion of the risks involved in investing in our securities.

Overview

Cesca develops, commercializes and markets a range of automated technologies for cell-based therapies. Since the 1990's, Cesca has been the pioneer and one of the leading developers and suppliers of automation technologies for the isolation, purification and storage of stem cells for the cord blood banking industry. In July 2017, a Cesca subsidiary, ThermoGenesis Corp. (ThermoGenesis), completed the strategic acquisition of the business and substantially all of the assets of SynGen Inc., a research and development company for automated cellular processing, and the products from both companies were combined to develop a proprietary CAR-TXpress™ platform that addresses the critical unmet need for better chemistry, manufacturing and controls (CMC) for the emerging immuno-oncology field, in particular, the chimeric antigen receptor T cell (CAR-T) market.

Immunotherapy has become the “next pillar” of cancer treatment, in addition to the traditional surgical removal, radiation and chemotherapy. Immunotherapy stimulates the patient's own immune system to fight cancer cells, and is fairly well-tolerated. Unlike chemotherapy and radiation, immunotherapy is designed to leave healthy cells unscathed. In 2017, two CAR-T cell based immunotherapeutic drugs were approved by the U.S. Food and Drug Administration (FDA). Kymriah® manufactured by Novartis was approved for the treatment of children with acute lymphoblastic leukemia (ALL) and Yescarta® manufactured by Kite Pharma for adults with advanced lymphomas. Both CAR-T drugs have reported over 80% response rate in the intended-to-treat cancer patient group. At the end of 2017, there were over 400 CAR-T cell related immune-oncology clinical trials globally registered on the National Institute of Health (NIH) website, clinicaltrials.gov. These trials target a wide variety of hematopoietic and solid tumors. However, the current high cost and low capacity of drugmakers to manufacture CAR-T cells are significant barriers affecting future applications and affordability of these new immunotherapies.

In November 2017, the Company introduced its CAR-TXpress™ system, a proprietary low-cost, functionally closed and semi-automated system for CAR-T cell manufacturing. The CAR-TXpress™ platform addresses critical unmet needs for improving CMC for the emerging CAR-T immuno-oncology field. CAR-TXpress™ eliminates the use of ficoll and replaces the use of magnetic beads for T cell isolation speeding up time-consuming steps using traditional methods in the cell manufacturing process. Such improvement may drastically reduce processing time and increase efficiency of the manufacturing process, which is intended to drive down the overall manufacturing cost as well as increase the

manufacturing capacity for future CAR-T drugmakers.

Through ThermoGenesis, the Company is currently developing the X-Series™ of devices and reagent kits as part of the CAR-TXpress™ platform. The initial X-Series™ products are intended for research use and/or non-commercial manufacturing of cell-based products for clinical research. The Company expects to do a soft launch during the second quarter of 2018, with initial shipments planned for research laboratories and key opinion leaders in the CAR-T research space. The Company is also developing commercial manufacturing devices and reagent kits for current good manufacturing practices (cGMP) manufacturing of CAR-T for drug developers. In addition, ThermoGenesis is actively in discussions with potential global distribution partners for the X-Series™ products. More details of the X-Series™ products are described in the “Product” section below.

In addition to selling the “off-the-shelf” X-Series™ products, we are also planning to enter into the CAR-T third party cellular process development and manufacturing service business by collaborating with, and possibly establishing our own contract development and manufacturing organizations (CDMO) in the U.S. and China, the two leading markets with the highest numbers of active CAR-T clinical trials. Given the number of ongoing clinical trials registered globally, we believe this represents a significant growth opportunity for our CAR-TXpress™ platform to address the COGS issue for these exciting potential new treatments.

Table of Contents

In the stem cell and regenerative medicine field, Cesca continues to provide automation technologies for cord blood banking and autologous stem cell applications. Our AutoXpress® (AXP®) technology platform is a leading automated stem cell isolation device product for the cord blood banking industry. Cesca also has a proprietary point-of-care, autologous stem cell-based therapy under development for the treatment of patients with critical limb ischemia (CLI). The Company's 362 patient, multi-center pivotal phase 3 Critical Limb Ischemia Rapid Stem Cell Treatment (CLIRST) trial is designed to evaluate the safety and efficacy of autologous stem cell-based therapy to stimulate the regeneration of blood vessels, promote wound healing and prevent amputation. Cesca's CLI trial design was accepted and approved by the FDA. Previous clinical studies using Cesca's proprietary, point-of-care-technologies have demonstrated the regeneration of blood vessels and improved blood circulation in the limbs, using a patient's own bone marrow derived stem cells. The Company is in early stage development of autologous stem cell based therapy intended to treat patients with acute myocardial infarction and cartilage tissue degeneration, addressing significant unmet needs in the vascular, cardiology and orthopedic markets.

Cesca is an affiliate, through common controlling ownership, of the Boyalife Group, a China-based industry research alliance encompassing top research institutions for stem cell and regenerative medicine. As of May 11, 2018, approximately 60% of our outstanding common stock is owned by Boyalife (Hong Kong) Limited.

Business Strategy

Our business strategy is to leverage our over 25 years of expertise, our strong intellectual property portfolio and significant know-how in the automated cellular processing field to develop automated cellular processing devices and processes for the fast evolving immunotherapeutic field, including more efficient methods of manufacturing CAR-T cells. Our CAR-TXpress platform addresses many of critical unmet needs for improving CAR-T cell manufacturing and reducing cost. Our intention is to aggressively pursue these new growth opportunities in this emerging field of immuno-oncology, while continuing to support the performance and competitiveness of our flagship product lines in the cord blood and stem cell banking arena.

In 2018, we plan to pursue business opportunities through two separate business divisions which focus on immuno-oncology and regenerative medicine, respectively.

In the immuno-oncology field:

Launch X-Series™ devices and reagents for research use only, including the X-Mini™, and X-Auto™ kits for cellular isolation and purification and non-commercial manufacturing of cell-based products for clinical research. Develop and launch our X-Series™ devices and reagents for clinical use, including our X-Clini™ kit for cGMP commercial manufacturing of CAR-T cells for drug developers and manufacturers.

Expand CDMO for immuno-oncology through internal and external efforts, including, but not limited to, partnerships, licensing, or co-development transactions.

3

Table of Contents

In the stem cell and regenerative medicine field:

Sustain our market leadership position in automated devices for the separation and concentration of stem cell preparation for the cord blood banking market.

Continue supporting product registration and marketing of automated devices for the separation and concentration of bone marrow-derived stem cell preparation for the point-of-care clinical application market.

Partner our clinical development programs, including our lead Critical Limb Ischemia Rapid Stem Cell Treatment (CLIRST) phase III clinical trial, with third parties to maximize the value of our existing clinical development programs while eliminating our costs for running clinical trials.

Recent Key Events and Accomplishments

Acquired the assets of SynGen Inc. (SynGen). On July 7, 2017, our subsidiary, ThermoGenesis, acquired the business and substantially all of the assets of SynGen, a privately held Sacramento, California-based technology company that develops, markets, and sells advanced cell separation tools and accessories. In the transaction (SynGen Transaction), ThermoGenesis acquired substantially all of SynGen's operating assets, including its proprietary cell processing platform. In exchange, ThermoGenesis issued to SynGen shares of ThermoGenesis common stock that, after giving effect to the issuance, constitute 20% of ThermoGenesis' outstanding common shares, and ThermoGenesis also made a one-time cash payment of \$1.0 million to SynGen. Immediately prior to the SynGen Transaction, the Company contributed the assets, business, and current liabilities of its blood and bone-marrow processing device business to ThermoGenesis and will operate such business (together with the acquired business) through the ThermoGenesis subsidiary.

Increased Line of Credit by \$5 Million. On September 13, 2017, we entered into an amendment to the Credit Agreement with Boyalife Investment Fund II, Inc. increasing our maximum borrowing availability under our debt facility thereunder (the Debt Facility) from \$5.0 million to \$10.0 million.

Received two new patent issuances for CAR-T cell processing. In 2017, the U.S. Patent and Trademark Office (USPTO) awarded ThermoGenesis two new U.S. Patents, No. 9,695,394 and 9,821,111, both entitled "Cell Separation Devices, Systems, and Methods." These two new patents include our apparatus and method claims that protect our proprietary technology for isolating and harvesting purified populations of rare, therapeutically critical target cells from blood, bone marrow, leukapheresis product, and other cell sources, while maintaining the viability of the cells under aseptic conditions. This advanced cell separation technology, known as Buoyancy-Activated Cell Separation, is key to the ongoing development of Cesca's CAR-TXpress™ platform.

Introduced the CAR-TXpress™ platform. In September 2017, ThermoGenesis formally introduced the CAR-TXpress™ cellular manufacturing platform technology at the CAR-TCR Summit in Boston. CAR-TXpress™ is a proprietary, ficoll-free, magnetic beads free, functionally closed cellular processing platform that addresses the critical unmet need for improving manufacturing capacity and cost control for the emerging CAR-T cell based immune-oncology market.

Raised \$2.4 Million in Equity Financing. On December 1, 2017, we sold 898,402 shares of common stock at a price of \$3 per share. The net proceeds from the sale and issuance of the shares, after deducting the offering expenses borne by the Company were approximately \$2,368,000.

Filed additional patents covering our CAR-T cell processing technology. Most recently, we filed a fourth patent application with the USPTO for our CAR-T cell manufacturing technology addressing key issues to enhance cellular purification and activation. The provisional patent application is intended to expand patent coverage of the ability of our CAR-TXpress™ platform to activate and transduce CD3+ T cells and expand genetically modified CART-cells.

Expanded into CDMO business through exclusive license agreement in Asia. In March 2018, we entered into an exclusive license agreement with IncoCell, a wholly owned subsidiary of the Boyalife Group, to implement our CDMO strategy for China and other regional countries in Asia. As of the end of 2017, more than 400 CAR-T cell clinical trials were registered with clinicaltrials.gov, one third were originated from the U.S. and one third from China. IncoCell currently operates a 160,000 sq. ft. cGMP facility in Tianjin, China.

Table of Contents

Raised \$1.2 Million in Equity Financing. On March 28, 2018, we closed a registered direct offering of common stock consisting of an aggregate of 609,636 shares of common stock at a price of \$2.27 per share for gross proceeds of \$1.38 million. After deducting the placement agent's commission and other estimated offering expenses payable by us, the net proceeds to us in the offering were approximately \$1.2 million. Additionally, the investors received unregistered warrants in a simultaneous private placement to purchase up to 304,818 shares of common stock. The warrants have an exercise price of \$2.68 per share and shall be exercisable commencing six months following the issuance date and have a term of 5.5 years.

Amended and Restated Debt Facility. On April 16, 2018, we entered into a First Amended and Revolving Restated Credit Agreement (Amended Credit Agreement) and Second Amended and Restated Convertible Promissory Note (Amended Note) with Boyalife Asset Holding II, Inc. (Lender), the successor by merger to Boyalife Investment Fund II, Inc. The Amended Credit Agreement and Amended Note modified and amended the Debt Facility as follows:

The Lender was granted the right to convert, at any time, outstanding principal and accrued but unpaid interest under the Amended Note into shares of our common stock at a conversion price equal to \$1.61 per share, subject to customary adjustments for stock splits, reverse stock splits, and the like (Fixed Conversion Price). Notwithstanding the foregoing, if the Amended Note is converted after March 6, 2022 (Maturity Date), the conversion price of the Amended Note will be the lower of the Fixed Conversion Price or an amount equal to 90% of the average volume-weighted average price of our common stock during the 10 trading days immediately prior to the Maturity Date. Prior to the April 2018 amendment, the debt was convertible by the Lender only upon maturity of the obligation. The Amended Note contains a conversion blocker provision (the Conversion Blocker) providing that the number of shares issuable upon conversion of the Amended Note may not exceed 19.99% of our outstanding shares of common stock on the date the Debt Facility was originally entered into (March 6, 2017), unless we obtain stockholder approval for such issuance in the manner required by the Marketplace Rules of the Nasdaq Stock Market, Inc. Based on the number of outstanding shares of common stock at the time the Debt Facility was entered into, in the absence of stockholder approval, the Amended Note is convertible into no more than 1,976,291 shares of common stock.

If we in the future issue shares of common stock, or are deemed to issue shares of common stock, prior to the full payment or conversion of the Amended Note for a price per share lower than the Fixed Conversion Price then in effect, the Fixed Conversion Price will be reduced to the price per share paid in the future issuance, with certain customary exceptions for equity plan issuances and issuances pursuant to certain strategic transactions. Based on a conversion price adjustment resulting from an assumed public offering price of \$1.07 per unit in this offering, the last reported sale price of our common stock on the Nasdaq Capital Market on May 11, 2018, and assuming that stockholder approval of the elimination of the conversion blocker is obtained, the Amended Note would be convertible into an aggregate of 7,679,439 shares of our common stock based on \$7.2 million of principal and \$1.1 million in accrued interest under the Amended Note as of March 31, 2018.

We were granted the right to defer the payment of the \$657,000 interest payment that was originally due on December 31, 2017 until December 31, 2018, or if earlier, the date on which we completes a debt or equity financing transaction resulting in gross proceeds of \$5.0 million or more.

We further amended the Debt Facility on May 7, 2018 to provide that the Debt Facility is secured by a security interest in the stock held by us in our ThermoGenesis subsidiary.

In connection with Amended Credit Agreement, on April 16, 2018, we entered into a First Amended and Restated Nomination and Voting Agreement (Amended Nomination Agreement), which amends and restates the Nomination and Voting Agreement originally entered into on February 13, 2016, by the Company and Boyalife (Hong Kong) Limited (Boyalife HK). Boyalife HK is the Company's largest stockholder and an affiliate of the Lender. The Amended Nomination Agreement provides that Boyalife HK will have the right to designate a number of members of our Board of Directors that is in proportion to the "Boyalife Ownership Percentage", which is Boyalife HK's and its affiliates' combined percentage ownership of outstanding common stock, treating as outstanding any shares of common stock underlying convertible securities that are immediately exercisable by Boyalife HK and its affiliates' (including under the Amended Note) without any further payment (Boyalife Ownership Percentage). The Amended Nomination Agreement will terminate according to its terms when and if the Boyalife Ownership Percentage falls below 20%.

X-Series™ Products

Immuno-Oncology Products

In November 2017, we announced the development of a proprietary CAR-TXpress™ platform that addresses the critical unmet need to improve CMC manufacturing for the emerging CAR-T therapies for cancer patients. CAR-TXpress™ eliminates the use of ficoll and magnetic beads for cell isolation procedures, and reduces processing time and increases cell recovery rates. The CAR-TXpress™ platform includes the following X-Series™ products:

X-LAB™ for Cell Isolation – a semi-automated, functionally-closed, ficoll-free, system for the rapid isolation of different target cells from various sources including blood and blood products.

X-BACS™ for Cell Purification – a semi-automated, "functionally closed" system that employs a single-use sterile, injection molded plastic disposable cartridge in which streptavidin coated lipid microbubbles and biotinylated antibodies bind to, and make buoyant, target cells (such as CD3+ T-cells) so they separate from non-target cells during centrifugation with great efficiency. Simultaneously, the non-target cells are automatically transferred to a separate cartridge chamber leaving a highly-purified and viable population of target cells for research or clinical use.

X-WASH™ for Washing and Reformulation – a semi-automated, functionally-closed system that washes and volume-reduces fresh or thawed cells or cell cultures to a user-defined final volume.

BioArchive® for Cryogenic Cellular Product Storage – an automated, controlled-rate-freezing, liquid nitrogen freezer intended for the cryopreservation and single-cassette based storage of clinical samples. The BioArchive® provides customers who need to store therapeutic cell populations in cryogenic storage (-196°C) with a solution that combines the individualized controlled rate freezing of each sample, robotic storage and retrieval of each sample and real-time chain of custody management.

Table of Contents

ThermoGenesis is also developing a series of “off the shelf” single use kits that are comprised of different combinations of X-Series™ products depending on different customer use cases. These X-Mini™, X-Maxi™, and X-Auto™ kits are currently intended for research use and non-commercial manufacturing of cell-based products for clinical research. The Company is also developing the X-Clini™ kit intended for cGMP commercial manufacturing of CAR-T for drug developers. The Company expects to introduce these kits to the market during the second quarter of 2018, with initial shipments planned for key opinion leaders in the CAR-T research space. ThermoGenesis is also in active discussions with potential global distribution partners for the X-Series™ kits.

In addition to selling the X-Series™ products, we have future plans to enter the CDMO space utilizing our proprietary and patented technology. The U.S. and China are currently the two largest markets for active clinical trials for CAR-T and therefore we will target these two regions for our manufacturing operations. In March 2018, ThermoGenesis entered into an exclusive license agreement with IncoCell, a fully owned subsidiary of the Boyalife Group, to implement a CDMO strategy in China and other regions in Asia. Cesca’s CDMO business model is to introduce our CAR-TXpress™ automated manufacturing solutions on both a fee-for-service or co-development basis.

Stem Cell and Regenerative Medicine

Cesca is also leveraging its proprietary AutoXpress® technology platform for stem cell banking and for the development of autologous (utilizing the patient’s own cells) stem cell-based therapies that address significant unmet needs in the vascular, cardiology and orthopedic markets.

AXP® for Stem Cell Banking – a proprietary, automated system for the isolation, collection and storage of hematopoietic stem cell concentrates derived from cord blood and peripheral blood.

VXP® for Critical Limb Ischemia (CLI) – Cesca has a proprietary point-of-care, autologous (donor and recipient are the same individual) stem cell-based therapy under development which is intended for the treatment of patients with CLI. The FDA has cleared the Company to proceed with a 362 subject, multi-center pivotal phase III CLIRST study, which is designed to evaluate the safety and efficacy of Cesca’s autologous stem cell-based therapy in patients with no-option or poor option late stage CLI. Previous clinical studies using Cesca’s proprietary, point-of-care-technologies have demonstrated the regeneration of blood vessels and improved blood circulation in the limbs, using a patient’s own bone marrow derived stem cells.

VXP® for Acute Myocardial Infarction – Cesca has a proprietary, point-of-care autologous stem cell-based therapy under development which is intended as an adjunct treatment for patients who have suffered an acute ST-elevated myocardial infarction (STEMI), the most serious type of heart attack. Such treatments are aimed at minimizing the adverse remodeling of the heart post-STEMI.

PXP™ for Orthopedics – Osteoarthritis (OA) - Cesca is in early stage development of an autologous stem cell based therapy intended to treat patients with cartilage tissue degeneration that may lead to progressive cartilage loss and painful joint diseases. Localized articular cartilage defects can potentially be repaired by transplantation of autologous cell therapy. Therapies in development using Cesca's proprietary PXP™ system are expected to delay further deterioration and repair the damaged joint cartilage. Treatment is typically via a single procedure in the hospital or clinic.

Table of Contents

Cell Manufacturing and Banking Services (India)

Through our TotipotentRX subsidiary in Gurgaon, India, we operate an advanced clinical cell manufacturing, processing, testing, and storage facility, compliant with cGMP, Good Tissue Practices (GTP), and Good Laboratory Practices (GLP). We can support the production of a small, personalized medicine cell prescription. Patient samples and therapeutic aliquots are all labeled in accordance with ISBT 128 and stored in our own cryogenics facility. In addition, our clinical research organization (CRO), also located in Gurgaon, is, to our knowledge, the only specialized, in-hospital, cell therapy CRO in the world. We have expertise in the design and management of cell based clinical trials, including the ability to support the device prototyping and validation typically required for a combination product. These services ensure patient safety under Good Clinical Practices (GCP), quality laboratory documentation under GLP, and quality cell processing and handling under both cGMP and GTP. In partnership with Fortis Healthcare and through our advanced clinical infrastructure we also operate commercial service programs supporting bone marrow transplantation (hematopoietic stem cell transplantation) for hematological and oncological disorders as well as a licensed umbilical cord blood and tissue bank (NovaCord).

Our Clinical Programs

Our therapeutic development initiatives, focused in the fields of cardiovascular diseases and orthopedic cartilage regeneration, are based on our proprietary MXP[®] platform for the point-of-care harvesting, processing, and delivery of cells from the patient's own peripheral blood or bone marrow. A key advantage of our point-of-care system is that it is capable of delivering high cell viability and potency through a short intra-operative procedure, including bone marrow collection, target cell selection, characterization of the final cell concentrate, and re-injection into the patient. Based on our point-of-care platform, our CLI clinical program has received FDA clearance to initiate a phase III clinical trial to demonstrate efficacy in "no-option" or "poor-option" CLI patients. In addition to vascular diseases, we are also conducting early phase studies in orthopedic and wound healing areas. We are actively looking for strategic partners to co-develop our clinical programs.

Corporate Information

We are a Delaware corporation with principal executive offices located at 2711 Citrus Road, Rancho Cordova, CA 95742. Our telephone number is (916) 858-5100 and our web site is www.cescatherapeutics.com. The information contained in, and that which can be accessed through, our website is not incorporated into and does not form a part of this prospectus.

Table of Contents

THE OFFERING

Units offered by us in this offering Up to 4,672,897 units, each consisting of one share of our common stock and one common warrant to purchase one share of our common stock.

Pre-funded units offered by us in this offering We are also offering the opportunity to purchase, if the purchaser so chooses, up to 4,672,897 pre-funded units to purchasers whose purchase of units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering (each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock) in lieu of units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding common stock (or, at the election of the purchaser, 9.99%). The purchase price of each pre-funded unit is equal to the price at which the units are being sold to the public in this offering, minus \$0.01, and the exercise price of each pre-funded warrant included in each pre-funded unit is \$0.01 per share. For each pre-funded unit we sell, the number of units we are offering will be decreased on a one-for-one basis. Because we will issue a common warrant as part of each unit or pre-funded unit, the number of common warrants sold in this offering will not change as a result of a change in the mix of the units and pre-funded units sold. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants sold in this offering.

Common warrants offered by us in the offering Common warrants to purchase an aggregate of 4,672,897 shares of our common stock. Each unit and each pre-funded unit includes a common warrant to purchase one share of our common stock. Each common warrant will have an exercise price per share equal to \$ per share, will be immediately separable from the common stock or pre-funded warrant, as the case may be, will be immediately exercisable and will expire on the five year anniversary of the original issuance date. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the common warrants.

Common stock outstanding prior to this offering 11,482,480 shares of common stock.

Common stock outstanding after this offering 16,155,377 shares of common stock (assuming the sale of all securities offered hereby, at the assumed public offering price of \$1.07 per unit, the closing sale price of our common stock on the Nasdaq Capital Market on May 11, 2018, and assuming no exercise of any pre-funded warrants included in the pre-funded units sold in this offering and no exercise of the common warrants issued in this offering).

Use of proceeds We intend to use the proceeds received from this offering for general corporate purposes, including working capital. In the event that the gross proceeds of this offering (before placement agent fees and

offering expenses) equal or exceed \$5.0 million, then approximately \$657,000 of the proceeds will be used to pay accrued but unpaid interest under our revolving line of credit with an affiliate of our largest stockholder. See “Use of Proceeds” on page 24 of this prospectus.

Risk factors Investing in our securities involves a high degree of risk. For a discussion of factors to consider before deciding to invest in our securities, you should carefully review and consider the “Risk Factors” section of this prospectus, as well as the risk factors described or referred to in any documents incorporated by reference in this prospectus, and in any applicable prospectus supplement.

Trading Symbol Our common stock is listed on the Nasdaq Capital Market under the symbol “KOOL”. There is no established trading market for the warrants, and we do not expect a trading market to develop. We do not intend to list the warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the warrants will be extremely limited. We do not plan on applying to list the pre-funded warrants or the common warrants on the Nasdaq Capital Market, any national securities exchange or any other nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants or common warrants will be limited.

The number of shares of common stock outstanding after this offering as reflected in the table above, is based on the actual number of shares outstanding as of May 11, 2018, which was 11,482,480, and does not include, as of that date:

76,239 shares of our common stock issuable upon the exercise of outstanding stock options under our 2006 Incentive Plan, having a weighted average exercise price of \$13.03 per share;

12,396 shares of our common stock issuable upon the exercise of outstanding stock options under our 2012 Independent Director Plan, having a weighted average exercise price of \$21.87 per share;

1,117,775 shares of our common stock issuable upon the exercise of outstanding stock options under our 2016 Equity Incentive Plan, having a weighted average exercise price of \$3.01 per share;

4,435,012 shares of our common stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of \$9.13 per share;

1,976,291 shares of common stock issuable upon conversion of the Amended Note (which will increase to approximately 7,679,439 shares if our stockholders approve a proposal to eliminate the 19.99% conversion blocker in the Amended Note at our next annual stockholder meeting and after giving effect to an anti-dilution adjustment in the Amended Note based on an assumed public offering price of \$1.07 per unit in this offering, the last reported sale price of our common stock on the Nasdaq Capital Market on May 11, 2018); and

shares of common stock issuable upon exercise of warrants offered hereby.

Unless otherwise indicated, all information contained in this prospectus assumes no exercise of the warrants offered hereby.

Table of Contents

RISK FACTORS

An investment in our securities involves a high degree of risk. Before deciding to invest in our securities or to maintain or increase your investment, you should carefully consider the risks described below, in addition to the other information contained in this prospectus, our Transition Report on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K, and in our other filings with the Securities and Exchange Commission. The risks and uncertainties described below are not the only ones that we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business and results of operations. If any of these risks actually occur, our business, financial condition or results of operations could be seriously harmed. In that event, the market price for our common stock could decline and you may lose all or part of your investment.

Risks Related to Our Business

The Equity in our ThermoGenesis Subsidiary is 20% Owned by a Third Party that Holds Certain Minority Investor Rights in that Subsidiary, and Those Rights Could Limit or Delay Our Ability to Take Certain Major Actions Relating to ThermoGenesis.

Immediately prior to our acquisition of the assets and business of SynGen Inc. in July 2017, we contributed the assets and business of our blood and bone-marrow processing device business to our ThermoGenesis Corp. subsidiary. Substantially all of our historical revenues are attributable to our device business, and as a result of such contribution, the device business is now owned and operated by ThermoGenesis. In connection with the SynGen Transaction, we issued shares of ThermoGenesis common stock to SynGen resulting in SynGen owning 20% of the outstanding stock of ThermoGenesis on a post-transaction basis, and such common stock was thereafter transferred to Bay City Capital Fund V, L.P. and an affiliated fund (Bay City). Under the agreements relating to the SynGen Transaction, although we continue to own 80% of the outstanding capital stock of ThermoGenesis, Bay City was granted certain minority investor rights in ThermoGenesis. These rights include board representation rights, a right of first refusal over sales of ThermoGenesis stock by us, co-sale rights with respect to any sale of ThermoGenesis stock by us, and supermajority protective voting rights over certain major decisions, such as a sale of ThermoGenesis, raising capital in ThermoGenesis with preferred stock, transfers of ThermoGenesis assets, or redemptions of ThermoGenesis stock. In addition, the board of directors of ThermoGenesis is comprised of five persons, two of whom are designated by us, one of whom is designated by Bay City, one of whom is designated by us but must be independent, and one of whom is designated by Bay City but must be independent. The foregoing minority investor rights in ThermoGenesis could limit or delay our ability or flexibility to take certain major actions or make major decisions relating to ThermoGenesis that might be beneficial to our stockholders, unless such actions or decisions have the consent or support of Bay City. Accordingly, the minority investor rights in ThermoGenesis could have a negative impact on the market price of our common stock.

We May Not be Able to Successfully Recognize the Anticipated Benefits from the SynGen Transaction or Retain Key Acquisition Employees.

On July 7, 2017, our ThermoGenesis subsidiary acquired the business and substantially all of the assets of SynGen, a privately held Sacramento, California-based technology company that develops, markets, and sells advanced cell separation tools and accessories. The success of the SynGen Transaction depends on our ability to leverage the intellectual property, other assets, and acquired personnel of SynGen in order to increase our sales and profitability. In order to successfully achieve this, we will need to integrate the businesses and employees of SynGen and ThermoGenesis and motivate such employees. This will place significant demands on our management, our operational and financial systems, our infrastructure, and our other resources. If we do not effectively manage this process, our ability to grow the consolidated business in the manner anticipated by the acquisition will suffer, and we may lose key employees that we acquired from SynGen.

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 May 11, 2018, approximately 60% of our outstanding common stock is owned by Boyalife (Hong Kong) Limited. In addition, pursuant to the terms of the Amended Nomination Agreement we entered into with Boyalife (Hong Kong) Limited in April 2018, Boyalife (Hong Kong) Limited has the right to designate a number of members of our Board of Directors that is in proportion to the “Boyalife Ownership Percentage”, which is Boyalife (Hong Kong) Limited’s and its affiliates’ combined percentage ownership of outstanding common stock, treating as outstanding any shares of common stock underlying convertible securities that are immediately exercisable by Boyalife (Hong Kong) Limited and its affiliates’ (including under the debt facility) without any further payment (Boyalife Ownership Percentage). The Amended Nomination Agreement will terminate according to its terms when and if the Boyalife Ownership Percentage falls below 20%.

Table of Contents

Boyalife (Hong Kong) Limited is 100% owned by Yishu Li, the spouse of Dr. Xiaochun Xu, our CEO and chairman of our board of directors. As a result of their ownership and ability to designate members of our Board of Directors, Boyalife (Hong Kong) Limited (including Dr. Xu and his spouse Ms. Li) is 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, Dr. Xu and Ms. Li, acting together, are able to control all matters requiring stockholder approval, including the election of directors, the adoption of amendments to our certificate of incorporation and bylaws, and approval of a sale of our Company, and other significant corporate transactions. 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 from investing or making tender offers for our shares.

In addition, a company owned and controlled by Dr. Xu is a material creditor of our company. We are a party to a revolving debt facility with Boyalife Asset Holding II, Inc., a company owned and controlled by Dr. Xu, which has a maximum borrowing availability of \$10.0 million and an outstanding balance as of March 31, 2018 of \$7.2 million in principal and \$1.1 million in accrued interest. The debt facility matures on March 6, 2022, with accrued interest being paid annually on the last day of each calendar year. Because this debt facility is secured by all of our shares in our ThermoGenesis subsidiary, an event of default under the debt facility would have a material adverse impact on our interest in ThermoGenesis if the lender under the debt facility elected to foreclose on such security interest.

We Utilize Debt Financing from Outside the U.S. and an Inability to Obtain Funds when Requested Could Adversely Impact Operations.

We use debt financing for working capital and other cash requirements under a revolving debt facility with Boyalife Asset Holding II, Inc. Our ability to use this funding source may be impacted by reasons such as default or foreign government policies that restrict or prohibit transferring funds. In the event that we were not able to obtain funds as needed, it could result in delays to project funding or non-compliance with cash based covenants.

Our Potential Cell Therapy 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 programs among other services. If our agreement with Fortis Healthcare Limited is terminated or we are unable to rely on other third parties for certain clinical trial activities, our clinical trials may be delayed or cost more than anticipated.

We May Be Unable to Obtain Marketing Approval from the FDA For Our 510(k) Devices which may Delay or Reduce Future Sales.

At the end of 2016, the Company received approval from the FDA for the Company's amended pivotal study protocol for treatment of CLI. The amended CLI clinical trial is designed to demonstrate the safety and efficacy of the Company's point-of-care system for the treatment of CLI patients with limited or no treatment options. 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. The study population has been expanded to include patients who are poor candidates for either surgery or endovascular therapies. The sample size of the CLI trial was increased from 224 to 362 patients. With the FDA approval of our amended phase III clinical trial protocol of CLI, the Company is actively looking for an external strategic partner to move forward with the CLI clinical trial program. The marketing approval of our point-of-care device for the treatment of CLI indication is subject to a successful strategic partnership, successful completion of our phase III study with statistical significant results and acceptance of the results by the FDA for the disease indication. There can be no assurance that we will find a strategic partner or if we do, enter into an agreement on terms that are advantageous to us. Our inability to successfully complete any of the above mentioned steps, including entering into an agreement with a strategic partner, would have an adverse effect on our ability to obtain marketing approval in the United States.

Table of Contents

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.

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 and product candidates both in North America and international markets due to funding or resource constraints. 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. If we are unable to enter into collaborative arrangements, we may not be able to timely develop and commercialize those products.

Table of Contents

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 its Foreign Business.

For the six months ended December 31, 2017 sales to customers outside the U.S. comprised approximately 67% of revenues. This compares to 54% for the year ended June 30, 2017 and 57% for the year ended June 30, 2016. 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 a significant distributor comprised 12% and 28% of revenues for the three months ended March 31, 2018 and six months ended December 31, 2017, respectively. The loss of a large end user customer or distributor may decrease revenues, which could have a material adverse effect on our financial position and results.

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 (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.

Our Pending Litigation with Mavericks Capital could have a Material Adverse Effect on Us.

We are currently defending a lawsuit brought by Mavericks Capital LLC and Mavericks Capital Securities LLC against us and our CEO in California Superior Court arising from a July 2015 agreement between us and Mavericks in which Mavericks agreed to assist our Company in finding strategic partners. The complaint in the lawsuit alleges that

we breached the Mavericks agreement by failing to pay Mavericks a \$1 million "Transaction Fee" in connection with investment transactions between us and the Boyalife companies. Mavericks alleges that the Boyalife investment and associated conversion of Boyalife debt was a "Sale of the Company" within the meaning of the Mavericks agreement and therefore allegedly triggered the payment of a fee to Mavericks. The complaint seeks compensatory and special damages, interest, costs, and attorneys' fees. On June 22, 2017, we answered the complaint, denying all material allegations. In October 2017, to streamline the case and without acknowledging any liability, we deposited \$1.0 million with the court in the case (obtained from drawing down our line of credit with Boyalife Investment Fund II, Inc.). Mavericks has also dismissed our CEO from the case without liability. As of May 11, 2018, the parties were engaged in discovery, we have filed a Motion for Summary Judgement and no trial date has been set. Although we deny liability in this case and intend to defend it vigorously, there is no assurance that the outcome of the case and resulting legal fees will not have a material adverse effect on our financial condition.

Another Broker-Dealer has Asserted that They Are Entitled to a Tail Commission with Respect to Certain Investors in this Offering, Which May have a Material Adverse Effect on Us.

On January 31, 2018, we engaged another broker-dealer (the "BD") to serve as the lead managing underwriter for a proposed underwritten public offering of our common stock. The BD was not able to complete an underwritten public offering of our common stock prior to the end of the engagement period specified in our engagement agreement with the BD, which was February 16, 2018. Following the expiration of the engagement period, we completed a registered direct offering of 609,636 shares and 304,818 warrants on March 28, 2018. On March 28, 2018, we received a letter from the BD stating that, pursuant to the terms of their engagement agreement, the BD is entitled to a tail commission of 8% on proceeds received in the March 2018 registered direct offering from any investors with whom we met during the BD engagement, and the BD further stated in such letter that they would be entitled to an 8% tail commission on any proceeds received from such investors in any offering that occurs prior to August 16, 2018 (which would include this offering). We do not believe that the BD is entitled to a tail commission under the terms of their engagement agreement because, among other reasons, they were not prepared to proceed with an underwritten offering of common stock during the engagement period, but the BD disagrees and has informed us that they may file a legal action to enforce their alleged rights. Although we intend to vigorously defend any such claim filed by the BD, if the BD continues to assert that it is entitled to a tail commission and files a legal claim, there is no assurance that the outcome of the case and resulting legal fees will not have a material adverse effect on our financial condition.

Table of Contents

Risks Related to Our Operations

We Do Not Have Commercial-Scale Manufacturing Capability And Have Minimal Commercial Manufacturing Experience.

We operate cGMP 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 do not have large scale experience in manufacturing, and currently 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 Capabilities which May Limit our Ability to Significantly Increase Sales Quickly.

We have limited internal capabilities in the sales, marketing, and distribution areas. There can be no assurance that we will be able to establish sales, marketing, and distribution capabilities internally 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.

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.

Table of Contents

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; provided, however, 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 cGMP 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.

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.

Table of Contents

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 AutoXpress® (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 (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.

The SEC has adopted a final rule to implement Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which imposes new disclosure requirements regarding the use of “conflict minerals” mined from the Democratic Republic of Congo and adjoining countries. These minerals include tantalum, tin, gold and tungsten. We may incur significant costs associated with complying with the new disclosure requirements, including, but not limited to, costs related to determining which of our products may be subject to the rules and identifying the source of any “conflict minerals” used in those products. Additionally, implementing the new requirements could adversely affect the sourcing, supply and pricing of materials used in the manufacture of our products. We may also face reputational challenges if we are unable to verify through our compliance procedures the origins for all metals used in our products.

Table of Contents

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 Quality System Regulations (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.

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; provided; however, no assurances can be provided that we will be able to find another qualified supplier on a timely basis or at all. 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, which could have a material adverse effect on our business and operations.

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 CBR Systems, Inc. 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 \$2,000,000, 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 complete 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.

Table of Contents

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 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. We have purchased a new Enterprise Resource Planning (ERP) system and are in the implementation process. Until the new system is fully implemented, any information technology system disruptions, if not anticipated and appropriately mitigated, could have an adverse effect on our business and operations.

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 (among other things) requires public companies to conduct an annual review and evaluation of their internal control over financial reporting. If we fail to comply with the rules under the Sarbanes-Oxley Act, related to disclosure controls and procedures, or if we discover additional material weaknesses and other deficiencies in our internal control and accounting procedures, our stock price could decline significantly and raising capital could be more difficult. Moreover, effective internal controls are necessary for us to produce reliable financial reports and are important in helping prevent financial fraud. If we cannot provide reliable financial reports or prevent fraud, our business and operating results could be harmed, investors could lose confidence in our reported financial information, and the trading price of our common stock could drop significantly.

Security Breaches and Other Disruptions Could Compromise our Information and Expose us to Liability, Which Would Cause our Business and Reputation to Suffer.

In the ordinary course of the Company's business, the Company collects and stores sensitive data, including intellectual property, our proprietary business information and that of our customers, suppliers and business partners and personally identifiable information of the Company's employees on its networks. The secure processing, maintenance and transmission of this information is critical to the Company's operations and business strategy. Despite the Company's security measures, its information, technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise the Company's networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings or regulatory penalties and could disrupt the Company's operations and the services it provides to customers, damage the Company's reputation, and cause a loss of confidence in the Company's products and services, which could adversely affect the Company's business.

Table of Contents

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 market and 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 pre-market approval (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.

Table of Contents

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.

Operating in Foreign Jurisdictions Subjects Us 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.

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 our competitors may 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. Any of the foregoing may have a material adverse effect on our results of operation.

Changes in Healthcare Policy Could Subject us to Additional Regulatory Requirements that may Delay the Commercialization of our Products and Increase our Costs.

The U.S. government and other governments have shown significant interest in pursuing healthcare reform. Any government-adopted reform measures could adversely impact the pricing of our diagnostic products and tests in the U.S. or internationally and the amount of reimbursement available from governmental agencies or other third party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce healthcare costs may adversely affect our ability to set prices for our products and services that we believe are fair, which may impact our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and judicial decisions, that relate to healthcare availability, methods of delivery or payment for products and services, or sales, marketing or pricing, may limit our potential revenue or force us to revise our research and development programs. The pricing and reimbursement environment may change in the future and become more challenging for several reasons, including policies advanced by the current executive administration in the U.S., new healthcare legislation or fiscal challenges faced by government health administration authorities. Specifically, in both the U.S. and certain foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably.

For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (PPACA), has substantially changed the way healthcare is financed by both government health plans and private insurers. The PPACA contains a number of provisions that are expected to impact our business and operations in ways that may negatively affect our revenues in the future. While it is too early to predict all the specific effects the PPACA or any future healthcare reform legislation will have on our business, such provisions could materially adversely affect our business, prospects and financial condition.

The Food and Drug Administration Amendments Act of 2007 gives the FDA enhanced post-marketing authority, including the authority to require post-marketing studies and clinical studies of products, labeling changes based on new safety information, and compliance with risk evaluations and mitigation strategies approved by the FDA. The FDA's exercise of this authority could result in delays or increased costs during product development, clinical studies and regulatory review, increased costs to assure compliance with post-approval regulatory requirements, and potential restrictions on the sale and/or distribution of approved products, all of which could materially adversely affect our business, prospects and financial condition.

Table of Contents

Product Liability and Uninsured Risks May Adversely Affect the Continuing Operations.

We operate in an industry susceptible to significant product liability claims. Additionally, our cGMP 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. We may be liable if any of our products or services 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 financial condition.

Risks Related to Operating Results and Financial Markets

We Have Incurred Net Losses and We Anticipate that our Losses will Continue.

We have not been profitable for a significant period. For the three months ended March 31, 2018 and six months ended December 31, 2017, we had a net loss of \$3,370,000 and \$2,770,000, respectively. For fiscal years ended June 30, 2017 and 2016, we had a net loss of \$29,095,000 and \$18,588,000, respectively, and an accumulated deficit at March 31, 2018, of \$190,679,000. 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.

Our Financial Statements Include an Explanatory Paragraph that Expresses Substantial Doubt About our Ability to Continue as a Going Concern, Indicating the Possibility that We May Not be able to Operate in the Future.

Primarily as a result of our losses incurred to date, our expected continued future losses, and limited cash balances, we have included an explanatory paragraph in our financial statements expressing substantial doubt about our ability to continue as a going concern. Our ability to continue as a going concern is contingent upon, among other factors, the sale of the shares of our common stock or obtaining alternate financing.

We Will Need to Raise Additional Capital to Fund our Operations and in Furtherance of Our Business Plan.

As of March 31, 2018, our cash balance and short-term investments was approximately \$2.9 million and our working capital was approximately \$3.9 million. Due to our recurring losses from operations and the expectation that we will continue to incur losses in the future, we will be required to raise additional capital to complete the development and commercialization of our current product candidates. We have historically relied upon private and public sales of our equity, as well as debt financings to fund our operations. At March 31, 2018, we had \$7.2 million outstanding under our Credit Agreement. In order to raise additional capital, we may seek to sell additional equity and/or debt securities or obtain a credit facility or other loan, which we may not be able to do on favorable terms, or at all. Our ability to obtain additional financing will be subject to a number of factors, including market conditions, our operating performance and investor sentiment. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the development and/or commercialization of one or more of our product candidates, restrict our operations or obtain funds by entering into agreements on unfavorable terms.

Table of Contents

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.

At March 31, 2018, we have a goodwill balance of \$13,976,000 and a net intangible assets balance of \$21,590,000, out of total assets of \$50,181,000. 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.

Table of Contents

Risks Related to This Offering

Management will have Broad Discretion with Respect to the Use of the Proceeds From this Offering.

Our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. It is possible that our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value.

You will Experience Immediate and Substantial Dilution in the Net Tangible Book Deficit Per Share of the Common Stock Included in the Units or Issuable Upon Exercise of the Common Warrants or Pre-funded Warrants in this Offering.

Since the effective price per share of common stock included in the units or issuable upon exercise of the common warrants or the pre-funded warrants being offered is substantially higher than the net tangible book deficit per share of our common stock outstanding prior to this offering, you will suffer immediate and substantial dilution in the net tangible book deficit of the common stock included in the units or issuable upon the exercise of the common warrants or the pre-funded warrants issued in this offering. See the section titled “Dilution” below for a more detailed discussion of the dilution you will incur if you purchase units in this offering.

The exclusive jurisdiction and waiver of trial by jury clauses set forth in the form of securities purchase agreement and warrants to be issued to purchasers in this offering may have the effect of limiting a purchaser’s rights to bring legal action against us and could limit a purchaser’s ability to obtain a favorable judicial forum for disputes with us.

Section 5.9 of the securities purchase agreement (a form of which has been filed as exhibit 10.39 of Amendment No. 2 to the Registration Statement on Form S-1 to which this prospectus forms a part), which may be executed by certain institutional investors in this offering, provides for investors to consent to exclusive jurisdiction to courts located in New York, New York and Section 5.21 provides for a waiver of the right to a trial by jury. These provisions are also set forth in Section 5(e) of the warrants to be issued to purchasers in this offering (forms of which have been filed as exhibits 10.37 and 10.38 of Amendment No. 2 to the Registration Statement on Form S-1 to which this prospectus forms a part). These provisions may have the effect of limiting the ability of investors to bring a legal claim against us due to geographic limitations and/or preference for a trial by jury and may limit an investor’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us. Alternatively, if a court were to find this exclusive forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely

affect our business and financial condition.

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.

Table of Contents

Recently Enacted Tax Reform Legislation in the U.S. Could Adversely Affect our Business and Financial Condition.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (Tax Act) was signed into law, making significant changes to the Internal Revenue Code. Changes under the Tax Act include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings, limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of orphan drugs). The overall impact of the new federal tax law is uncertain, and our business and financial condition could be adversely affected. For example, because of the tax rate decrease, our deferred tax assets and our corresponding valuation allowance against these deferred tax assets have been reduced and may continue to be adversely impacted. In addition, it is uncertain if and to what extent various states will conform to Tax Act and what effect that legal challenges will have on the Tax Act, including litigation in the U.S. and international challenges brought at organizations such as the World Trade Organization. The impact of the Tax Act on holders of our common stock is also uncertain and could be adverse. Investors should consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

We do not Pay Cash Dividends.

We have never paid any cash dividends on our common stock and do not intend to pay cash dividends in the foreseeable future. Instead, we intend to apply earnings, if any, 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 may increase or decrease and may limit your ability to realize any value from your investment, including the initial purchase price.

Holders of our warrants will have no rights as a common stockholder until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of your warrants, you will have no rights with respect to shares of our common stock issuable upon exercise of your warrants. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

A large number of shares issued in this offering may be sold in the market following this offering, which may depress the market price of our common stock.

A large number of shares issued in this offering may be sold in the market following this offering, which may depress the market price of our common stock. Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. If there are more shares of common stock offered for sale than buyers are willing to purchase, then the market price of our common stock may decline to a market price at which buyers are willing to purchase the offered shares of common stock and sellers remain willing to sell the shares. All of the shares of common stock issued in the offering will be freely tradable without restriction or further registration under the Securities Act of 1933, as amended.

The warrants issued in this offering may not have any value.

Each warrant will have an exercise price equal to \$ _____ and will expire on the fifth anniversary of the date they first become exercisable. In the event our common stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

There is no public market for the common warrants or the pre-funded warrants to purchase shares of our common stock included in the units and the pre-funded units being offered by us in this offering.

There is no established public trading market for the common warrants or the pre-funded warrants included in the units and the pre-funded units being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the common warrants or the pre-funded warrants on any national securities exchange or other nationally recognized trading system, including the Nasdaq Capital Market. Without an active market, the liquidity of the common warrants and the pre-funded warrants will be limited.

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements in this prospectus and the documents incorporated by reference constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). These statements relate to future events concerning our business and to our future revenues, operating results and financial condition. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “intend,” “believe,” “estimate,” “forecast,” “predict,” “propose,” “potential” or “continue,” or the negative of those terms or other comparable terminology.

Any forward looking statements contained in this prospectus and the documents incorporated by reference are only estimates or predictions of future events based on information currently available to our management and management’s current beliefs about the potential outcome of future events. Whether these future events will occur as management anticipates, whether we will achieve our business objectives, and whether our revenues, operating results or financial condition will improve in future periods are subject to numerous risks. There are a number of important factors that could cause actual results to differ materially from the results anticipated by these forward-looking statements. These important factors include those that we discuss under the heading “Risk Factors” in this prospectus and in other sections of our Transition Report on Form 10-K for the period from July 1, 2017 through December 31, 2017, as filed with the SEC, as well as any update in our Quarterly Report(s) on Form 10-Q and Current Reports filed on Form 8-K from time to time with the SEC, that are incorporated by reference into this prospectus. You should read these factors and the other cautionary statements made in this prospectus and in the documents we incorporate by reference into this prospectus as being applicable to all related forward-looking statements wherever they appear in this prospectus or the documents we incorporate by reference into this prospectus. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

We estimate that the net proceeds of this offering will be approximately \$4.4 million from the sale of our securities in this offering, based on an assumed public offering price of \$1.07 per unit, the last reported sale price of our common stock on the Nasdaq Capital Market on May 11, 2018, and assuming the sale of 4,672,897 units and no sale of any pre-funded units in this offering after deducting the placement agent fees and estimated offering expenses payable by us. The public offering price per unit or pre-funded unit will be negotiated between us and the placement agent based on market conditions at the time of pricing, and may be at a discount to the current market price of our common stock. This amount excludes the proceeds, if any, from the exercise of common warrants in this offering. If all of the common warrants sold in this offering were to be exercised in cash at an exercise price of \$ _____ per share, we would receive additional net proceeds of approximately \$ _____ million. We cannot predict when or if these common warrants will be exercised. It is possible that these common warrants may expire and may never be

exercised.

We intend to use the net proceeds from this offering for general corporate purposes, including working capital. In the event that the gross proceeds of this offering (before placement agent fees and offering expenses) equal or exceed \$5.0 million, approximately \$657,000 of the net proceeds will be used to pay accrued but unpaid interest under our revolving line of credit with an affiliate of our largest stockholder. We have not otherwise determined the amounts we plan to spend on more specific areas or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to invest the net proceeds of this offering in short-term, investment-grade, interest-bearing securities.

A \$0.25 increase or decrease in the assumed public offering price of \$1.07 per unit, based on the last reported sale price for our common stock as reported on the Nasdaq Capital Market on May 11, 2018, would decrease or increase the number of units sold in this offering by approximately 885,018 units and 1,424,664 units, respectively, which would decrease or increase the amount of common stock issued by 885,018 shares and 1,424,664 shares, respectively, and the number of common warrants issued by 885,018 common warrants and 1,424,664 common warrants, respectively, assuming no sale of any pre-funded units.

Similarly, a one million unit or pre-funded unit increase or decrease in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease the net proceeds to us by approximately \$984,000 assuming the assumed public offering price of \$1.07 per unit and no sale of any pre-funded units in this offering, and after deducting estimated placement agent fees and expenses and estimated offering expenses payable by us.

Table of Contents**CAPITALIZATION**

The following table sets forth our cash, cash equivalents and capitalization as of March 31, 2018:

on an actual basis; and

on an as adjusted basis to give effect to the assumed sale of our securities in this offering, based on an assumed public offering price of \$1.07 per unit, the last reported sale price of our common stock on the Nasdaq Capital Market on May 11, 2018, and assuming the sale of 4,672,897 units and no sale of any pre-funded units in this offering after deducting the placement agent fees and estimated offering expenses payable by us.

You should read this information in conjunction with our consolidated financial statements and notes thereto incorporated by reference into this prospectus.

	Actual	As Adjusted
Cash and cash equivalents	\$ 2,872,000	\$ 7,247,000
Total liabilities	\$ 19,061,000	\$ 19,061,000
Stockholders' equity:		
Preferred stock, \$0.001 par value; 2,000,000 shares authorized, none outstanding	--	--
Common stock, \$0.001 par value; 350,000,000 shares authorized; 11,482,064 issued and outstanding on an actual basis, 16,154,961 issued and outstanding on an as adjusted basis	11,000	16,000
Paid in capital in excess of par	222,721,000	227,091,000
Accumulated deficit	(190,679,000)	(190,679,000)
Accumulated other comprehensive loss	(36,000)	(36,000)
Total Cesca Therapeutics Inc. stockholders' equity	\$ 32,017,000	\$ 36,392,000
Noncontrolling interests	(897,000)	(897,000)
Total Stockholders' Equity	\$ 31,120,000	\$ 35,495,000
Total Liabilities and Stockholders' Equity	\$ 50,181,000	\$ 54,556,000

The table above is based on 11,482,064 shares of our common stock outstanding as of March 31, 2018 and excludes:

76,239 shares of our common stock issuable upon the exercise of outstanding stock options under our 2006 Incentive Plan, having a weighted average exercise price of \$13.03 per share;

416 shares of our common stock issuable upon the vesting of restricted stock units under our 2006 Equity Incentive Plan;

12,396 shares of our common stock issuable upon the exercise of outstanding stock options under our 2012 Independent Director Plan, having a weighted average exercise price of \$21.87 per share;

1,117,775 shares of our common stock issuable upon the exercise of outstanding stock options under our 2016 Equity Incentive Plan, having a weighted average exercise price of \$3.01 per share;

4,435,012 shares of our common stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of \$9.13 per share; and

shares of common stock issuable upon exercise of warrants offered hereby.

Table of Contents**DILUTION**

If you purchase our securities in this offering, you will experience dilution in the net tangible book value per share of the common stock you purchase to the extent of the difference between the combined public offering price per share and related warrants and the as adjusted net tangible book value per share of our common stock immediately after this offering, assuming no value is attributed to the warrants.

Our historical net tangible book value is the amount of our total tangible assets less our related liabilities plus the amount allocated to our non-controlling interests. Our historical net tangible book value per share is our historical net tangible book value divided by the number of shares of common stock outstanding as of March 31, 2018. Our historical net tangible book value as of March 31, 2018, was approximately \$1,181,000, or \$0.10 per share of common stock.

As adjusted net tangible book value is our historical net tangible book value, after giving effect to the assumed sale by us of 4,672,897 units in this offering at an assumed public offering price of \$1.07 per unit, based on the last reported sale price of our common stock on the Nasdaq Capital Market on May 11, 2018, assuming no sale of any pre-funded units in this offering and after deducting estimated placement agent's fees and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2018, would have been approximately \$5,556,000, or approximately \$0.34 per share, which excludes the common warrants to purchase shares of our common stock to be issued to investors in this offering. This represents an immediate increase in net tangible book value of approximately \$0.24 per share to existing stockholders and an immediate dilution of approximately \$0.73 per share to new investors purchasing shares of our common stock and warrants in this offering. The following table illustrates this per share dilution:

Assumed combined public offering price per unit		\$ 1.07
Historical net tangible book value per share as of March 31, 2018	\$ 0.10	
Increase in historical net tangible book value per share attributable to this offering	0.24	
As adjusted net tangible book value per share as of March 31, 2018 after this offering		0.34
Dilution in as adjusted net tangible book value per share to new investors		\$ 0.73

This table does not take into account further dilution to new investors that could occur upon the exercise of the warrants offered hereby or outstanding options and warrants having a per share exercise price less than the public offering price per share in this offering. To the extent that outstanding options or warrants are exercised, or restricted stock units vest and settle, investors purchasing our common stock will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The number of shares of common stock outstanding after this offering as reflected in the table above, is based on the actual number of shares outstanding as of March 31, 2018, which was 11,482,064, and does not include, as of that date:

76,239 shares of our common stock issuable upon the exercise of outstanding stock options under our 2006 Incentive Plan, having a weighted average exercise price of \$13.03 per share;

416 shares of our common stock issuable upon the vesting of restricted stock units under our 2006 Equity Incentive Plan;

12,396 shares of our common stock issuable upon the exercise of outstanding stock options under our 2012 Independent Director Plan, having a weighted average exercise price of \$21.87 per share;

1,117,775 shares of our common stock issuable upon the exercise of outstanding stock options under our 2016 Equity Incentive Plan, having a weighted average exercise price of \$3.01 per share;

4,435,012 shares of our common stock issuable upon the exercise of outstanding warrants, having a weighted average exercise price of \$9.13 per share; and

shares of common stock issuable upon exercise of warrants offered hereby.

Table of Contents

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering (i) up to 4,672,897 units, each unit consisting of one share of our common stock and one common warrant to purchase one share of our common stock, and (ii) up to 4,672,897 pre-funded units, each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock. For each pre-funded unit we sell, the number of units we are offering will be decreased on a one-for-one basis. The share of common stock and accompanying common warrant included in each unit will be issued separately, and the pre-funded warrant to purchase one share of common stock and the accompanying common warrant included in each pre-funded unit will be issued separately. Units will not be issued or certificated. We are also registering the shares of common stock included in the units and the shares of common stock issuable from time to time upon exercise of the pre-funded warrants included in pre-funded units and common warrants included in the units and the pre-funded units offered hereby.

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.

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. 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 which we may designate in the future.

Pre-Funded Warrants

The following summary of certain terms and provisions of pre-funded warrants included in the pre-funded units that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the pre-funded warrant, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants.

Duration and Exercise Price

Each pre-funded warrant will have an initial exercise price per share equal to \$0.01. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The pre-funded warrants will be issued separately from the accompanying common warrants included in the pre-funded units, and may be transferred separately immediately thereafter.

Exercisability

The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's pre-funded warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Purchasers of pre-funded units in this offering may also elect, prior to the issuance of the pre-funded warrants, to have the initial exercise limitation set at 9.99% of our outstanding common stock.

Table of Contents

Cashless Exercise

If, at the time a holder exercises its pre-funded warrants, a registration statement registering the issuance of the shares of common stock underlying the pre-funded warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants.

Transferability

Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the pre-funded warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

Trading Market

There is no trading market available for the pre-funded warrants on any securities exchange or nationally recognized trading system.

Right as a Stockholder

Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the pre-funded warrants do not have the rights or privileges of holders of our common

stock, including any voting rights, until they exercise their pre-funded warrants.

Common Warrants

The following summary of certain terms and provisions of common warrants included in the units and the pre-funded units that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the common warrants, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of common warrant for a complete description of the terms and conditions of the common warrants.

Duration and Exercise Price

Each common warrant included in the units and the pre-funded units offered hereby will have an initial exercise price per whole share equal to \$. The common warrants will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The common warrants will be issued separately from the common stock included in the units, or the pre-funded warrants included in the pre-funded units, as the case may be, and may be transferred separately immediately thereafter. A common warrant to purchase one share of our common stock will be included in each unit or pre-funded unit purchased in this offering.

Table of Contents

Exercisability

The common warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the common warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's common warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the common warrants.

Cashless Exercise

If, at the time a holder exercises its common warrants, a registration statement registering the issuance of the shares of common stock underlying the common warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the common warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the common warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

Transferability

Subject to applicable laws, a common warrant may be transferred at the option of the holder upon surrender of the common warrant to us together with the appropriate instruments of transfer.

Exchange Listing

We do not intend to list the common warrants on any securities exchange or nationally recognized trading system.

Right as a Stockholder

Except as otherwise provided in the common warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the common warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their common warrants.

Fundamental Transactions

If we (i) effect any merger or consolidation with or into another person, (ii) effect any sale of all or substantially all of our assets in one or a series of related transactions, (iii) complete any tender offer or exchange offer pursuant to which holders of common stock are permitted to tender or exchange their shares for other securities, cash or property, (iv) we effect any reclassification of our common stock or any compulsory share exchange pursuant to which our common stock is effectively converted into or exchanged for other securities, cash or property, or (v) other similar transactions, then the warrant will become the right thereafter to receive, upon exercise, the number of shares of common stock of the successor or acquiring corporation (or the Company, if it is the survivor) and any additional consideration receivable upon such a fundamental transaction by holders of shares of common stock immediately prior to such transaction.

Table of Contents

DIVIDEND POLICY

We currently intend to retain any future earnings to finance the growth and development of our business. Therefore, we do not anticipate declaring or paying any cash dividends in the foreseeable future. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

PLAN OF DISTRIBUTION

H.C. Wainwright & Co., LLC (the “Placement Agent” or “Wainwright”) has agreed to act as our exclusive placement agent in connection with the offering pursuant to the terms and conditions of an engagement agreement. The Placement Agent is not purchasing or selling any securities offered by this prospectus, and is not required to arrange for the purchaser or sale of any specific number or dollar amount of securities, but will use its reasonable best efforts to arrange for the sale of the securities offered by this prospectus. We will enter into a securities purchase agreement directly with certain institutional investors. The Placement Agent may retain one or more brokers, dealers or sub-agents in connection with the offering.

We will deliver the securities being issued to the investors upon receipt of investor funds for the purchase of the securities offered pursuant to this prospectus. We expect to deliver the securities being offered pursuant to this prospectus on or about, 2018.

Fees and Expenses

	Per Pre- Funded Unit
Placement Agent Fees	
Total	

We have agreed to pay to the Placement Agent a placement agent fee equal to eight percent (8%) of the aggregate gross proceeds to us from the sale of the securities in the offering. In addition, we have agreed to reimburse the placement agent for offering expenses in the non-accountable sum of \$25,000 and for legal fees and expenses in an

amount up to \$75,000, subject to compliance with FINRA Rule 5110(f)(2)(D)(i).

Table of Contents

Lock-Up Agreements

We have agreed, subject to certain exceptions, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any shares of our common stock or other securities convertible into or exercisable or exchangeable for shares of our common stock for a period of 90 days after the effective date of the registration statement of which this prospectus is a part without the prior written consent of Wainwright.

In addition, each of our officers, directors and certain existing shareholders have agreed not to offer, pledge, sell, contract to sell, grant any option or contract to purchase, purchase any option or contract to sell, or otherwise dispose of, directly or indirectly, any shares of common stock or any securities convertible into, exercisable for, or exchangeable for shares of common stock, or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock for a period of 90 days after the effective date of the registration statement of which this prospectus is a part without the prior written consent of Wainwright.

Wainwright may in its sole discretion and at any time without notice release some or all of the shares subject to lock-up agreements prior to the expiration of the lock-up period. When determining whether or not to release shares from the lock-up agreements, the Placement Agent will consider, among other factors, the security holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time.

Indemnification

The engagement agreement provides that we will indemnify the Placement Agent against specified liabilities, including liabilities under the Securities Act. The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the shares sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the Placement Agent would be required to comply with the Securities Act and the Exchange Act, including without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock, overallotment purchase rights and warrants by the Placement Agent acting as principal. Under these rules and regulations, the Placement Agent:

• may not engage in any stabilization activity in connection with our shares; and

•

may not bid for or purchase any of our shares or attempt to induce any person to purchase any of our shares, other than as permitted under the Exchange Act, until it has completed its participation in the distribution of shares in this offering.

Other Relationships

From time to time, the Placement Agent and its affiliates have provided, and may in the future provide, various investment banking, financial advisory and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees. In the course of their businesses, the Placement Agent and its affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the Placement Agent and its affiliates may at any time hold long or short positions in such securities or loans. In March 2018, the Placement Agent acted as the exclusive placement agent in connection with a registered direct offering of an aggregate of 609,636 shares of our common stock and in connection with a concurrent private placement with respect to the issuance of warrants to purchase, in the aggregate, up to 304,818 shares of our common stock. Except for services provided in connection with this offering, and except as set forth in this paragraph, the Placement Agent has not provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus.

Listing of Common Stock

Our common stock is listed on the Nasdaq Capital Market under the symbol “KOOL”.

Table of Contents

LEGAL MATTERS

Certain legal matters with respect to the securities offered hereby will be passed upon by Foley & Lardner LLP, Tampa, Florida. Certain other legal matters will be passed upon for the placement agent by Sheppard Mullin Richter & Hampton LLP, New York, New York, in connection with this offering.

EXPERTS

The consolidated financial statements of the Company as of and for the six months ended December 31, 2017 and as of and for the years ended June 30, 2017 and 2016 appearing in our Transition Report on Form 10-K for the period from July 1, 2017 to December 31, 2017, have been audited by Marcum LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of SynGen Inc. as of and for the years ended December 31, 2016 and 2015, appearing in our Current Report on Form 8-K/A dated September 22, 2017, have been audited by Moss Adams LLP, independent auditors, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock and warrants to purchase shares of common stock being offered by this prospectus. This prospectus does not contain all of the information in the registration statement of which this prospectus is a part and the exhibits to such registration statement. For further information with respect to us and the common stock and warrants offered by this prospectus, we refer you to the registration statement of which this prospectus is a part and the exhibits to such registration statement. Statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document incorporated by reference or filed as an exhibit to the registration statement of which this prospectus is a part. Each of these statements is qualified in all respects by this reference.

You may read and copy the registration statement of which this prospectus is a part, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including Cesca Therapeutics, Inc. The SEC's Internet site can be found at <http://www.sec.gov>. You may also request a copy of these filings, at no cost, by writing us at 2711 Citrus Road, Rancho Cordova, CA 95742 or telephoning us at (916) 858-5100.

We are subject to the information and reporting requirements of the Exchange Act, and, in accordance with this law, file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. We also maintain a website at www.cescatherapeutics.com. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information 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, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below:

Edgar Filing: CESCA THERAPEUTICS INC. - Form S-1/A

Our Annual Report on Form 10-K for the fiscal year ended June 30, 2017, filed with the SEC on September 22, 2017 and as amended on October 20, 2017;

Our Transition Report on Form 10-K for the transition period from July 1, 2017 to December 31, 2017, filed with the SEC on March 22, 2018;

Our Definitive Proxy Statement filed with the SEC on April 30, 2018;

Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed with the SEC on November 14, 2017, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, filed with the SEC on May 14, 2018;

Our Current Reports on Form 8-K filed with the SEC on July 11, 2017, and as amended on September 22, 2017, August 4, 2017, August 25, 2017, September 19, 2017, and as amended on September 22, 2017, September 19, 2017, November 15, 2017, November 29, 2017, December 1, 2017, January 5, 2018, March 16, 2018, March 28, 2018; April 18, 2018; and May 7, 2018; and

The description of our common stock set forth in Item 8.01 of our Current Report on Form 8-K filed on May 18, 2017 pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description; and

All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before we terminate the offering under this prospectus.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the respective dates that such documents are filed with the SEC. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof or of the related prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which is also incorporated or deemed to be incorporated herein modifies or supersedes such statement. Any such 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 his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from us, at no cost, by writing or telephoning us at: Cesca Therapeutics Inc., (916) 858-5100, 2711 Citrus Road, Rancho Cordova, CA 95742, Attention: Corporate Secretary.

The most recent information that we file with the SEC automatically updates and supersedes older information. The information contained in any such filing will be deemed to be a part of this prospectus, commencing on the date on which the filing is made. Information furnished under Items 2.02 or 7.01 (or corresponding information furnished under Item 9.01 or included as an exhibit) in any past or future Current Report on Form 8-K that we file with the SEC, unless we specified in such report, is not incorporated by reference in this prospectus.

Table of Contents

**Up to 4,672,897 Units (each Unit contains One Share of Common Stock and One
Common Warrant to Purchase One Share of Common Stock)**

**Up to 4,672,897 Pre-funded Units (each Pre-funded Unit contains One Pre-funded Warrant to Purchase
One Share of Common Stock and One Common Warrant to Purchase One Share of Common Stock)**

Shares of Common Stock Underlying the Pre-funded Warrants and

Shares of Common Stock Underlying the Common Warrants

PROSPECTUS

H.C. Wainwright & Co.

, 2018

Table of Contents**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution.**

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the Securities and Exchange Commission registration fee and the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee.

	Amount to be Paid
SEC registration fee	\$ 2,490
FINRA filing fee	\$ 3,500
Accounting fees and expenses	\$ 28,000
Legal fees and expenses	\$ 159,000
Transfer agent and registrar fees	\$ 6,000
Miscellaneous fees and expenses	\$ 26,010
Total	\$ 225,000

Item 14. Indemnification of Directors and Officers.

Section 102(b)(7) of the Delaware General Corporation Law (the “Delaware Law”) enables a corporation, in its original certificate of incorporation or an amendment thereto, to eliminate or limit the personal liability of a director for monetary damages for breach of the director’s fiduciary duty, except (i) for any breach of the director’s duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the Delaware Law (providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions), or (iv) for any transaction from which the director derived an improper personal benefit. The Company’s Sixth Amended and Restated Certificate of Incorporation, as amended (Certificate of Incorporation), contains such a provision.

In addition, Section 145 of the Delaware Law provides that a corporation may indemnify any persons, including officers and directors, who are, or are threatened to be made, party to any threatened, pending or completed legal 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 an officer, director, employee or agent of the corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such officer, director, employee or agent acted in good faith and in a manner the person reasonably believed to be in or not opposed to the corporation's best interests and, with respect to criminal proceedings, had no reasonable cause to believe that the person's conduct was unlawful. A Delaware corporation may indemnify officers or directors in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against expenses (including attorneys' fees) that he or she actually and reasonably incurred. The Company's Certificate of Incorporation and Restated Bylaws provide for indemnification of directors and officers to the fullest extent permitted by the Delaware Law.

Item 15. Recent Sales of Unregistered Securities.

In the three years preceding the filing of this Registration Statement, we issued the securities described below that were not registered under the Securities Act.

On August 31, 2015, we entered into a securities purchase agreement with an institutional accredited investor. Pursuant to the terms of the securities purchase agreement, we sold the investor Senior Secured Convertible Debentures in principal amount of \$15,000,000 ("Debentures"), Series A warrants ("Series A Warrants") to purchase up to 1,102,942 shares of our common stock ("Series A Warrant Shares") at an exercise price equal to \$13.60 per Series A Warrant Share and Series B warrants ("Series B Warrants" and together with the Series A Warrants, "Warrants") to purchase up to 606,618 shares of our common stock ("Series B Warrant Shares" and together with the Series A Warrant Shares, "Warrant Shares") at an exercise price equal to \$13.60 per Series B Warrant Share (the "Financing"). In connection with the Financing, we paid Maxim Group LLC, the placement agent, an aggregate cash fee equal to \$440,000 in connection with the initial closing as well as the reimbursement of certain expenses. The issuance of Debentures and Warrants were completed in accordance with the exemption provided by Rule 506 of Regulation D of the Securities Act and/or Section 4(a)(2) of the Securities Act.

Table of Contents

On February 2, 2016, we entered into a Purchase Agreement (the “Purchase Agreement”) with Boyalife Investment Inc. (“Boyalife USA”) and Boyalife (Hong Kong) Limited (“Boyalife HK” and, together with Boyalife USA, the “Investors”), pursuant to which we issued to Boyalife USA a secured three-year convertible debenture with an aggregate principal face amount of \$12.5 million (the “2016 Debenture”). Pursuant to the terms of the 2016 Debenture, all outstanding principal and accrued and unpaid interest up to and including the maturity date is convertible into shares of our common stock at a per share price of \$3.40 (the “Conversion Price”) at our option at any time prior to maturity, provided that (i) the 20-day simple moving average price of our common stock on the date of conversion is at least 125% of the Conversion Price and (ii) the volume weighted average trading price of our common stock has been greater than the Conversion Price for ten consecutive trading days. On August 22, 2016, we notified Boyalife USA in writing that we elected to convert all outstanding principal and interest accrued and otherwise payable under the 2016 Debenture, which included the conversion of \$12,500,000 of principal and \$8,250,000 of interest up to and including the maturity date of the 2016 Debentures, effective as of August 22, 2016 (the “Conversion”). Upon the Conversion of the 2016 Debenture, we issued an aggregate of 6,102,941 shares of common stock to Boyalife USA. The issuances have been determined to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated thereunder, as transactions by an issuer not involving a public offering.

On March 6, 2017, we entered into a Revolving Credit Agreement (the “Credit Agreement”) with Boyalife Investment Fund II, Inc., an Illinois corporation. On April 16, 2018, we entered into the Amended Credit Agreement with Boyalife Asset Holding II, Inc. (“Lender”), the predecessor by merger to the prior lender. The Amended Credit Agreement grants the Company the right to borrow up to \$10.0 million (the “Note”) from Lender on an unsecured basis at any time prior to the Maturity Date. As part of the amendments in April 2018, the Lender was granted the right to convert, at any time, outstanding principal and accrued but unpaid interest into shares of our common stock at a conversion price equal to \$1.61 per share, subject to customary adjustments for stock splits, reverse stock splits, and the like (the “Fixed Conversion Price”). Notwithstanding the foregoing, if the debt is converted after the Maturity Date, the conversion price will be the lower of the Fixed Conversion Price or an amount equal to 90% of the average volume-weighted average price of our common stock during the 10 trading days immediately prior to the Maturity Date. Prior to the April 2018 amendment, the debt was convertible by the Lender only upon maturity of the obligation. The number of shares issuable upon such conversion may not exceed 19.99% of our number of outstanding shares of common stock unless we obtain stockholder approval for such issuance in the manner required by the Marketplace Rules of the Nasdaq Stock Market, Inc. The offer and sale of the Note was made (and the offer and sale of the shares common stock issuable upon conversion of the Note were and will be made) pursuant to the exemption from registration provided by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated thereunder.

On March 28, 2018, we completed a registered direct offering of 609,636 shares of our common stock at a purchase price of \$2.27 per share and a simultaneous private placement of unregistered warrants to purchase up to 304,818 shares of common stock. The warrants have an exercise price of \$2.68 per share and are exercisable commencing six months following the issuance date and will expire 5.5 years from the issuance date. The warrants were offered in a private placement under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated thereunder.

Item 16. Exhibits and Financial Statement Schedules.

(a) *Exhibits.*

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and are incorporated by reference herein.

(b) *Financial Statement Schedules.*

All other schedules are omitted because they are not required, are not applicable, or the information is included in the financial statements or the related notes to financial statements thereto.

II-2

Table of Contents

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 (the “Act”);

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information 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 a 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement.

Provided, however, that Paragraphs (1)(i), (1)(ii) and (1)(iii) of this section 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 Commission by the registrant pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Act, 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 of 1933 to any purchaser:

If the registrant is subject to Rule 430C (§230.430C of this chapter), 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 (§230.430A of this chapter), 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.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 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 (§230.424 of this chapter);

(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;

Table of Contents

(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 of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the 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 of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

Table of Contents

EXHIBIT INDEX

Exhibit No.	Document Description
2.1	<u>Plan of Merger Agreement and Reorganization Agreement between ThermoGenesis Corp. and TotipotentRX, dated July 15, 2013 (Incorporated by reference to Exhibit 2.1 to Form 8-K filed with the SEC July 16, 2013.)</u>
3.1	<u>Sixth Amended and Restated Certificate of Incorporation, as amended (Incorporated by reference to Exhibit 3.1 of Registration Statement on Form S-8 filed with the SEC on May 18, 2017.)</u>
3.2	<u>Restated Bylaws of Cesca Therapeutics Inc. (Incorporated by reference to Exhibit 99.1 to Form 8-K filed with the SEC on October 30, 2014.)</u>
3.3	<u>Certificate of Merger (Incorporated by reference to Exhibit 3.4 to Form 8-K filed with the SEC on February 21, 2014.)</u>
5.1	<u>Opinion of Foley & Lardner LLP</u>
10.1	<u>Amended and Restated 2006 Equity Incentive Plan (Incorporated by reference to Exhibit 10.6.1 to Form 8-K filed with the SEC on May 1, 2014.)</u>
10.2+	<u>Product Purchase and International Distribution Agreement between ThermoGenesis Corp. and Golden Meditech Holdings Limited (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on August 24, 2012 and amended October 24, 2012.)</u>
10.3	<u>2012 Independent Director Plan (Incorporated by reference to Exhibit A of the Company's Definitive Proxy Statement filed with the SEC on October 23, 2012.)</u>
10.4+	<u>Sales and Purchase Agreement between ThermoGenesis Corp. and CBR Systems, Inc. dated December 31, 2013 (Incorporated by reference to Exhibit 10.18 to Form 8-K filed with the SEC on January 7, 2014.)</u>
10.5	<u>Employment Agreement with Robin C. Stracey (Incorporated by reference to Exhibit 10.19 to Form 8-K filed with the SEC on June 15, 2015.)</u>
10.6	<u>Form of Series A Warrant (Incorporated by reference to Exhibit 10.3 to Form 8-K filed with the SEC on September 1, 2015.)</u>
10.6.1	<u>Form of Series A Warrant Amendment (Incorporated by reference to Exhibit 10.7 to Form 8-K filed with the SEC on February 3, 2016.)</u>
10.7	<u>General Release and Waiver between the Company and Kenneth L. Harris (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on September 30, 2015.)</u>
10.8	<u>Sixth Amended and Restated Technology License and Escrow Agreement between the Company, ThermoGenesis Corp. and CBR Systems, effective May 15, 2017 (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on May 31, 2017.)</u>
10.9	<u>Employment Agreement with Michael Bruch (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on October 28, 2015.)</u>
10.10	<u>Purchase Agreement between the Company and Boyalife Investment Inc. and Boyalife (Hong Kong) Limited (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on February 3, 2016.)</u>
10.11	<u>Form of Debenture between the Company and Boyalife Investment Inc. and Boyalife (Hong Kong) Limited (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on February 3, 2016.)</u>
10.12	<u>Form of Warrant (Incorporated by reference to Exhibit 10.3 to Form 8-K filed with the SEC on February 3, 2016.)</u>

Edgar Filing: CESCO THERAPEUTICS INC. - Form S-1/A

- 10.13 First Amended and Restated Nomination and Voting Agreement, dated April 16, 2018, between Cesca Therapeutics Inc. and Boyalife (Hong Kong) Limited. (Incorporated by reference to Exhibit 10.3 to Form 8-K filed with the SEC on April 18, 2018.)
- 10.14 Form of Security Agreement (Incorporated by reference to Exhibit 10.5 to Form 8-K filed with the SEC on February 3, 2016.)
- 10.15 Form of Securities Purchase Agreement between Cesca Therapeutics Inc. and certain institutional accredited investors, dated August 3, 2016 (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on August 4, 2016.)
- 10.16 Form of Placement Agency Agreement between Cesca Therapeutics Inc. and Maxim Group LLC, dated August 3, 2016 (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on August 4, 2016.)
- 10.17 General Release and Waiver dated November 7, 2016 by and between Cesca Therapeutics, Inc. and Robin Stracey (Incorporated by reference to Exhibit 10.2 to Form 8-K/A filed with the SEC on November 17, 2016.)
- 10.18 Executive Employment Agreement, dated November 13, 2017, between Cesca Therapeutics Inc. and Dr. Xiaochun (Chris) Xu. (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on November 15, 2017.)

II-5

Table of Contents

- 10.19 Form of Indemnification Agreement (Incorporated by reference to Exhibit 10.1 to Form 8-K/A filed with the SEC on November 17, 2016.)
- 10.20 Cesca Therapeutics Inc. 2016 Equity Incentive Plan, as amended (Incorporated by reference to Exhibit 10.1 to Registration Statement on Form S-8 filed with the SEC on May 18, 2017.)
- 10.20.1 Amendment to the Cesca Therapeutics Inc. 2016 Equity Incentive Plan, effective November 13, 2017. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on November 15, 2017.)
- 10.21 General Release and Waiver between Mr. Michael Bruch and Cesca Therapeutics Inc., effective February 28, 2017 (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on March 2, 2017.)
- 10.22 Employment Agreement between Ms. Vivian Liu and Cesca Therapeutics Inc., effective February 24, 2017 (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on March 2, 2017.)
- 10.22.1 Amendment No. 1, dated November 13, 2017, to Executive Employment Agreement between Vivian Liu and Cesca Therapeutics Inc. (Incorporated by reference to Exhibit 10.3 to Form 8-K filed with the SEC on November 15, 2017.)
- 10.23 First Amended and Restated Revolving Credit Agreement, dated April 16, 2018, between Cesca Therapeutics Inc. and Boyalife Asset Holding II, Inc. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on April 18, 2018.)
- 10.24 Second Amended and Restated Convertible Promissory Note, dated April 16, 2018, issued by Cesca Therapeutics Inc. to Boyalife Asset Holding II, Inc. (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on April 18, 2018.)
- 10.25 Asset Acquisition Agreement, dated July 7, 2017, between ThermoGenesis Corp. and SynGen Inc. (Incorporated by reference to Exhibit 2.1 to Form 8-K filed with the SEC on July 11, 2017.)
- 10.26 Voting Agreement, dated July 7, 2017, among the Company, ThermoGenesis Corp., Bay City Capital Fund V, L.P. and Bay City Capital Fund Co-Investment Fund, L.P. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on July 11, 2017.)
- 10.27 Right of First Refusal and Co-Sale Agreement, dated July 7, 2017, among the Company, ThermoGenesis Corp., Bay City Capital Fund V, L.P. and Bay City Capital Fund Co-Investment Fund, L.P. (Incorporated by reference to Exhibit 10.3 to Form 8-K filed with the SEC on July 11, 2017.)
- 10.28 Amended and Restated Certificate of Incorporation of ThermoGenesis Corp. (Incorporated by reference to Exhibit 10.4 to Form 8-K filed with the SEC on July 11, 2017.)
- 10.29+ International Distributor Agreement, dated August 21, 2017, between ThermoGenesis Corp. and Boyalife W.S.N. (Incorporated by reference to Exhibit 10.29 to Form 10-K filed with the SEC on September 22, 2017.)
- 10.30 Form of Stock Option Agreement. (Incorporated by reference to Exhibit 10.4 to Form 8-K filed with the SEC on November 15, 2017.)
- 10.31 ThermoGenesis Corp. 2017 Equity Incentive Plan. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on January 5, 2018.)
- 10.32 Form of Stock Option Agreement under ThermoGenesis Corp. 2017 Equity Incentive Plan. (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on January 5, 2018.)
- 10.33+ Exclusive License Agreement, dated March 12, 2018, between ThermoGenesis Corp. and IncoCell Tianjin Ltd. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on March 16, 2018)
- 10.34 Form of Common Stock Purchase Warrant. (Incorporated by reference to Exhibit 4.1 to Form 8-K filed with the SEC on March 28, 2018).
- 10.35 Securities Purchase Agreement, dated as of March 26, 2018, between Cesca Therapeutics Inc. and the Purchasers identified on the signature pages thereto. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on March 28, 2018).
- 10.36

Amendment No. 1, dated May 7, 2018, to First Amended and Restated Revolving Credit Agreement between Cesca Therapeutics Inc. and Boyalife Asset Holding II, Inc. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on May 7, 2018.)

10.37 Form of Common Warrant

10.38 Form of Pre-Funded Warrant

10.39 Form of Securities Purchase Agreement

10.40 Engagement Letter, dated as of March 22, 2018, by and between Cesca Therapeutics Inc. and H.C. Wainwright & Co., LLC. (Incorporated by reference to Exhibit 10.2 to Form 8-K filed with the SEC on March 28, 2018).

21.1 Subsidiaries (Incorporated by reference to Exhibit 21.1 to Form S-1 filed with the SEC on April 6, 2018)

23.1 Consent of Marcum LLP, independent registered public accounting firm (filed herewith)

23.2 Consent of Moss Adams LLP, independent auditors (filed herewith)

23.3 Consent of Foley & Lardner LLP (included in Exhibit 5.1)

24.1 Power of Attorney (Incorporated by reference to Exhibit 24.1 to Form S-1 filed with the SEC on April 6, 2018)

+ The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Amendment No. 2 to Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Rancho Cordova, State of California, on this 14th day of May, 2018.

Cesca Therapeutics Inc.

By: /s/ Xiaochun Xu
 Xiaochun “Chris” Xu, Chief Executive Officer

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/ Xiaochun Xu Xiaochun “Chris” Xu	Chief Executive Officer and Chairman of the Board <i>(Principal Executive Officer)</i>	May 14, 2018
/s/ Jeff Cauble Jeff Cauble	Principal Financial and Accounting Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	May 14, 2018
/s/ Vivian Liu Vivian Liu	Chief Operating Officer and Director	May 14, 2018
* Russell Medford	Director	May 14, 2018
* Joseph Thomis	Director	May 14, 2018
* Mark Westgate	Director	May 14, 2018
* James Xu	Director	May 14, 2018

*By: /s/ Xiaochun Xu

Xiaochun “Chris” Xu, as attorney-in-fact

II-7