

CESCA THERAPEUTICS INC.

Form 424B5

March 27, 2018

Table of Contents

Prospectus Supplement

Filed Pursuant to Rule 424(b)(5)

(To Prospectus dated August 1, 2016) Registration No. 333-212314

609,636 Shares of Common Stock

We are offering up to 609,636 shares of our common stock, par value \$0.001 per share, for a purchase price equal to \$2.27 per share to institutional and accredited investors. We are also selling to purchasers of our common shares in this offering, warrants to purchase up to 304,818 shares of common stock which represent 50% of the number of our shares of common stock being offered in this offering. The warrants and the shares of common stock issuable upon the exercise of the warrants are not being registered under the Securities Act of 1933, as amended, or the Securities Act, are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder. Our common stock is listed on The Nasdaq Capital Market under the symbol "KOOL." On March 23, 2018, the closing sale price of our common stock on The Nasdaq Capital Market was \$2.68 per share.

As of March 23, 2018, the aggregate market value of our outstanding common stock held by non-affiliates was \$12,283,340 based on 10,872,428 shares of outstanding common stock, of which 4,001,088 shares are held by non-affiliates, and a per share price of \$3.07 based on the closing sale price of our common stock on March 12, 2018. The value of all securities we have offered pursuant to General Instruction I.B.6. of Form S-3 in the last 12 calendar months (including those offered hereby) is \$4,079,000.

Investment in our common stock involves risks. See "Risk Factors" on page S-9 of this prospectus supplement and the risk factors contained in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of certain factors which should be considered before investing in our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

We have retained H.C. Wainwright & Co., LLC to act as our exclusive placement agent in connection with the arrangement of this transaction. We have agreed to pay the placement agent the placement agent fee set forth in the table below, which assumes that we sell all of the shares of common stock we are offering. The placement agent has no obligation to buy any of the shares of common stock from us and is not required to arrange for the sale of any specific number of shares or dollar amount but will use its "reasonable best efforts" to arrange for the sale of the shares.

	Per Share	Maximum Offering Amount
Offering price	\$2.27000	\$1,383,874
Placement agent fees(1)	\$0.1589	\$96,871
Proceeds, before expenses, to us	\$2.1111	\$1,287,003

In addition, we have agreed to reimburse the placement agent for offering expenses in the non-accountable sum of (1)\$35,000. See “Plan of Distribution” on page S-27 of this prospectus supplement for more information on the placement agent’s compensation.

Table of Contents

We estimate the total expenses of this offering, excluding the placement agent fees, will be approximately \$110,000. Because there is no minimum offering amount required as a condition to closing in this offering, the actual offering amount, the placement agent fees and net proceeds to us, if any, in this offering may be substantially less than the maximum offering amounts set forth above.

We expect to deliver the shares of common stock being offered pursuant to this prospectus supplement on or about March 28, 2018.

H.C. Wainwright & Co.

The date of this prospectus supplement is March 26, 2018.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

<u>About This Prospectus Supplement</u>	S-ii
<u>Cautionary Note Regarding Forward-Looking Information</u>	S-iii
<u>Prospectus Supplement Summary</u>	S-1
<u>Risk Factors</u>	S-9
<u>Use of Proceeds</u>	S-24
<u>Dilution</u>	S-25
<u>Description of Securities</u>	S-26
<u>Plan of Distribution</u>	S-27
<u>Legal Matters</u>	S-29
<u>Experts</u>	S-29
<u>Where You Can Find More Information</u>	S-29
<u>Incorporation of Certain Documents by Reference</u>	S-29

Prospectus

	<u>PAGE</u>
<u>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	1
<u>ABOUT THIS PROSPECTUS</u>	1
<u>ABOUT CESCA THERAPEUTICS INC.</u>	3
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	5
<u>INCORPORATION OF INFORMATION BY REFERENCE</u>	5
<u>RISK FACTORS</u>	7
<u>DESCRIPTION OF SECURITIES WE MAY OFFER</u>	7
<u>DESCRIPTION OF CAPITAL STOCK</u>	7
<u>DESCRIPTION OF WARRANTS</u>	12
<u>DESCRIPTION OF DEBT SECURITIES</u>	14
<u>DESCRIPTION OF UNITS</u>	16

<u>USE OF PROCEEDS</u>	16
<u>PLAN OF DISTRIBUTION</u>	17
<u>LEGAL MATTERS</u>	19
<u>EXPERTS</u>	19

S-i

Table of Contents

About This Prospectus Supplement

This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement on Form S-3, SEC registration statement number 333-212314, that we filed with the Securities and Exchange Commission (“SEC”) on June 29, 2016, as amended by the registration statement on Form S-3/A that we filed with the SEC on July 22, 2016, and that was declared effective on August 1, 2016 (the “Registration Statement”). Under this “shelf” registration process, we may sell any combination of securities described in the accompanying prospectus in one or more offerings, up to the total dollar amounts appearing on the cover of the Registration Statement. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of our common stock being offered, the risks of investing in our common stock, and other items.

This document is in two parts. The first part is this prospectus supplement, which contains specific information about the terms of the offering, including the types, amounts and prices of the securities being offered and the plan of distribution. This prospectus supplement may also add, update or change information contained in the accompanying prospectus and the documents incorporated by reference. This prospectus supplement may be updated or supplemented. The second part is the accompanying prospectus, which gives more general information, some of which may not apply to this offering. Generally, when we refer to this “prospectus,” we are referring to both documents combined. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or any document filed prior to the date of this prospectus supplement and incorporated by reference, the information in this prospectus supplement will control. You should read carefully both this prospectus supplement and the accompanying prospectus together with the additional information about us to which we refer you in the section of this prospectus supplement entitled “Where You Can Find More Information.”

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any state in which the offer or sale is not permitted. You should not assume that the information appearing in this prospectus supplement, the accompanying prospectus or any document incorporated by reference is accurate as of any date other than its date, regardless of the time of delivery of the prospectus or prospectus supplement or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus supplement, the accompanying prospectus, and the information incorporated by reference herein and therein, may include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

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

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.

S-ii

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 (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “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 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 in our 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.

Table of Contents

Prospectus Supplement Summary

This summary is not complete and does not contain all of the information that you should consider before investing in the shares of common stock offered by this prospectus. You should read this summary together with the entire prospectus supplement and the accompanying prospectus, including our financial statements, the notes to those financial statements and the additional information described in this prospectus supplement under the heading “Where You Can Find More Information” on page S-29, before making an investment decision. See the “Risk Factors” section of this prospectus supplement beginning on page S-9 and the “Risk Factors” section of the accompanying prospectus beginning on page 7 for a discussion of the risks involved in investing in our securities.

OUR COMPANY

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) clinicaltrials.gov website. 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 first half 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 cGMP manufacturing of CAR-T for drug developers. In addition, ThermoGenesis is actively in discussions with potential global distribution partners for our X-Series™ products. More details of the X-Series™ products are described in the “Product” section below.

S-1

Table of Contents

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. For each first two approved CAR-T drug products, analysts estimate that each product could reach peak revenues exceeding \$1 billion. Analysts also estimate that cost of goods (COGS) for these new therapies exceed \$100,000 per patient presenting a significant challenge for health care payors and patients. 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.

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 U.S. 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.

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 immune-oncology field:

Launch X-Series™ devices and reagents for research use only, including the X-Mini™, X-Maxi™, X-Auto™ kits for cellular isolation and purification and non-commercial manufacturing of cell-based products for clinical research.

S-2

Table of Contents

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 into contract development and manufacturing services (CDMO) for immune-oncology through internal and external efforts, including but not limited to partnerships, licensing, or co-development transactions.

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 (the “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 thereunder 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 November 2017, we 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.

S-3

Table of Contents

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 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 our 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 active 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.

X-Series™ Products

Immuno-Oncology Products

In November 2017, ThermoGenesis 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.

S-4

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 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 contract development manufacturing organization (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, Cesca 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.

S-5

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 current Good Manufacturing Practices (GMP), 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 unique 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 GMP 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.

RISK FACTORS

An investment in our common stock involves risk. Before deciding whether to participate in this offering, you should carefully consider the risk factors beginning on page S-9 of this prospectus supplement and the risk factors contained in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus.

CORPORATE INFORMATION

Edgar Filing: CESCA THERAPEUTICS INC. - Form 424B5

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 supplement.

S-6

Table of Contents

The Offering

The following summary contains basic information about this offering. The summary is not intended to be complete. You should read the full text and more specific details contained elsewhere in this prospectus supplement.

Issuer Cesca Therapeutics Inc.

Common stock offered by us 609,636 shares.

Offering price \$ 2.27 per share.

Common stock to be outstanding after this offering(1) 1,482,064 shares.
Concurrent private placement:

In a concurrent private placement, we are selling to the purchasers of shares of common stock in this offering, warrants to purchase one-half the number of the shares of common stock purchased by such purchasers in this offering, or up to 304,818 of our shares of common stock. The warrants will be exercisable six months after issuance at an exercise price of \$2.68 per share and will expire on the 5.5 year anniversary of the issuance date. The warrants and the shares of common stock issuable upon the exercise of the warrants are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the U.S. Securities Act and Rule 506(b) promulgated thereunder.

We intend to use the net proceeds from this offering for general corporate purposes, including working capital. See “Use of Proceeds.”

Use of proceeds

Risk factors See “Risk Factors” and the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of certain factors you should carefully consider before deciding to invest in shares of our common stock.

**The
Nasdaq
Capital
Market** KOOL

The number of shares of common stock outstanding after this offering as reflected in the table above, is based on (1) the actual number of shares outstanding as of March 26, 2018, which was 10,872,428, and does not include, as of that date:

76,157 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;

S-7

Table of Contents

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;

1,255,125 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;

4,130,194 shares of our common stock issuable upon the exercise of outstanding vested warrants, having a weighted average exercise price of \$9.60 per share; and

up to 304,818 shares of common stock issuable upon the exercise of the warrants to be issued in the concurrent private placement.

S-8

Table of Contents

Risk Factors

An investment in our shares of common stock involves a high degree of risk. Before deciding to invest in our shares of common stock 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 for the period from July 1, 2017 through December 31, 2017 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 asset acquisition, 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 asset acquisition, 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 Asset Acquisition 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 asset acquisition 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.

S-9

Table of Contents

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 December 31, 2017, approximately 63% of our outstanding common stock is owned by Boyalife (Hong Kong) Limited. In addition, pursuant to the terms of a Nomination and Voting Agreement we entered into with Boyalife (Hong Kong) Limited and Boyalife Investment Inc. in February 2016, Boyalife (Hong Kong) Limited and Boyalife Investment Inc. have the right to designate up to three of the seven members to our board of directors until such time as they collectively no longer hold at least 50% of our common stock.

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. Boyalife Investment, Inc. is also controlled by Dr. Xu. As a result of their ownership and ability to designate up to three members of our board of directors, Boyalife (Hong Kong) Limited and Boyalife Investment Inc. (including Dr. Xu and his spouse Ms. Li) are 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.

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. 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.

S-10

Table of Contents

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.

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 U.S. Food and Drug Administration (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 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. Our inability to successfully complete any of the above mentioned steps can affect our ability to obtain marketing approval in the United States.

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.

Table of Contents

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. There can be no assurance that we will be able to negotiate collaborative arrangements on favorable terms or at all or that current or future collaborative arrangements will be successful.

A Significant Portion of Revenue is Derived from Customers Outside the United States. We may Lose Revenues, Market Share, and Profits due to Exchange Rate Fluctuations and Political and Economic Changes Related to 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 28% of revenues for the six months ended December 31, 2017. The loss of a large end user customer or distributor may decrease revenues.

We may be Exposed to Liabilities under the Foreign Corrupt Practices Act and any Determination that we Violated these Laws could have a Material Adverse Effect on our Business.

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

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

Adverse Results of Legal Proceedings could have a Material Adverse Effect on Us.

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

S-12

Table of Contents

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 January 31, 2018, the parties were engaged in discovery, 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.

Risks Related to Our Operations

Our Ability to Conduct a CLIRST III Clinical Trial Is Substantially Dependent on Our Ability to Enter into a Strategic Partnership and There Are No Assurances That Such Funding Source will Materialize.

We will need additional funding to commence the CLIRST III clinical trial and we are actively looking for a strategic partner to co-sponsor the trial with us. We cannot assure that such funding will be available on a timely basis, in needed quantities, or on terms favorable to us, if at all.

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

We operate GMP manufacturing facilities for both devices and cellular production; however, they are not of sufficient size for medium to large commercial production of product candidates. We will not have large scale experience in 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.

S-13

Table of Contents

Our Inability to Protect our Patents, Trademarks, Trade Secrets and other Proprietary Rights could Adversely Impact our Competitive Position.

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

We may be Subject to Claims that our Products or Processes Infringe the Intellectual Property Rights of Others, which may Cause us to Pay Unexpected Litigation Costs or Damages, Modify our Products or Processes or Prevent us from Selling our Products.

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

We Commercially, in Co-Branding with Fortis Healthcare, Bank and Store Private Cord Blood Stem Cells in our TotipotentRX GMP Facility. We could be Subject to Unexpected Litigation Costs or Damages for Loss of One or More Family Owned Units of Cord Blood or if one of the Cord Blood Units We Store Causes Bodily Injury.

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

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

S-14

Table of Contents

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.

Any Failure to Achieve and Maintain the High Design and Manufacturing Standards that our Products Require may Seriously Harm our Business.

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

Our Revenues and Operating Results may be Adversely Affected as a Result of our Required Compliance with the Adopted EU Directive on the Restriction of the Use of Hazardous Substances in Electrical and Electronic Equipment, as well as other Standards Around the World.

A number of domestic and foreign jurisdictions seek to restrict the use of various substances, a number of which have been or are currently used in our products or processes. For example, the EU Restriction of Hazardous Substances in Electrical and Electronic Equipment (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.

S-15

Table of Contents

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.

Our Products may be Subject to Product Recalls which may Harm our Reputation and Divert our Managerial and Financial Resources.

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

We are Dependent on our Suppliers and Manufacturers to Meet Existing Regulations.

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

Dependence on Suppliers for Disposable Products and Custom Components May Impact the Production Schedule.

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

Failure to Meet the Financial Covenant in our Technology License and Escrow Agreement could Decrease our AXP Revenues.

Under our license and escrow agreement with 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.

Table of Contents

Failure to Retain or Hire Key Personnel may Adversely Affect our Ability to Sustain or Grow our Business.

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

Most of Our Operations Are Conducted At A Single Location. Any Disruption At Our Facilities Could Delay Revenues Or Increase Our Expenses.

Our U.S. device operations are conducted at a single location although we contract the manufacturing of certain devices, disposables and components. We take precautions to safeguard our facilities, through insurance, health and safety protocols, and off-site storage of computer data. However, a natural disaster, such as a fire, flood or earthquake, could cause substantial delays in our operations, damage or destroy our manufacturing equipment or inventory, and cause us to incur additional expenses. The insurance we maintain against fires, floods, and other natural disasters may not be adequate to cover our losses in any particular case.

Failure to Maintain and/or Upgrade Our Information Technology Systems May Have an Adverse Effect on Our Operations.

We rely on various information technology systems to manage our operations, and we evaluate these systems against our current and expected requirements. We have purchased a new ERP system and are in the implementation process. Until the new system 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. However, as a “smaller reporting company,” we are not required to obtain an auditor attestation regarding our internal control over financial reporting. If, in the future, we require an attestation report from our independent registered public accounting firm and that firm is unable to provide an unqualified attestation report on the effectiveness of our internal controls over financial reporting, investor confidence and, in turn, our stock price could be materially adversely affected.

S-17

Table of Contents

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.

Risks Related to Our Industry

Our Business is Heavily Regulated, Resulting in Increased Costs of Operations and Delays in Product Sales.

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

Changes in Governmental Regulations May Reduce Demand for our Products or Increase our Expenses.

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

S-18

Table of Contents

To Sell in International Markets, We will be Subject to Regulation in Foreign Countries.

In cooperation with our distribution partners, we intend to market our current and future products both domestically and in many foreign markets. A number of risks are inherent in international transactions. In order for us to market our products in certain non-U.S. jurisdictions, we need to obtain and maintain required regulatory approvals or clearances and must comply with extensive regulations regarding safety, manufacturing processes and quality. These regulations, including the requirements for approvals or clearances to market, may differ from the FDA regulatory scheme. International sales also may be limited or disrupted by political instability, price controls, trade restrictions and changes in tariffs. Additionally, fluctuations in currency exchange rates may adversely affect demand for our products by increasing the price of our products in the currency of the countries in which the products are sold.

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

To Operate In Foreign Jurisdictions, We Are Subject to Regulation by Non-U.S. Authorities.

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

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

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

materials and other inputs for our products in the currency of the countries in which the products are sold.

If Our Competitors Develop and Market Products That Are More Effective Than Our Product Candidates Or Obtain Regulatory and Market Approval For Similar Products Before We Do, Our Commercial Opportunity May Be Reduced Or Eliminated.

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

Table of Contents

Influence by the Government and Insurance Companies may Adversely Impact Sales of our Products.

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

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

We operate in an industry susceptible to significant product liability claims. Additionally, our GMP laboratory within Fortis Memorial Research Institute in Gurgaon, India, processes stem cells for certain uses under a physician's order, and we charge for these services. 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 future 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 six months ended December 31, 2017, we had a net loss of \$2,770,000. 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 December 31, 2017, of \$187,640,000. The report of independent auditors on our December 31, 2017 financial statements includes an explanatory paragraph indicating there is substantial doubt about our ability to continue as a going concern. 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.

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

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

S-20

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 December 31, 2017, we have a goodwill balance of \$13,976,000 and a net intangible assets balance of \$21,629,000, out of total assets of \$51,111,000. 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.

Risks Related to the Our Common Stock

If the Price of our Common Stock does not Meet the Requirements of the Nasdaq Capital Market (Nasdaq), 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 Nasdaq 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 Nasdaq 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.

S-21

Table of Contents

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.

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 can go down as well as up and may limit your ability to realize any value from your investment, including the initial

purchase price.

Risks Related to This Offering

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

Although we have highlighted the intended use of proceeds for 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.

S-22

Table of Contents

You will Experience Immediate and Substantial Dilution as a Result of this Offering.

You will suffer substantial dilution as a result of this offering. See “Dilution” in this prospectus supplement for more information of the dilution you will incur in this offering.

S-23

Table of Contents

Use of Proceeds

We estimate that the net proceeds from the sale of the securities we are offering will be approximately \$1.2 million, assuming that we sell all of the shares of common stock we are offering, after deducting placement agent's fee and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for general corporate purposes, including working capital. We have not 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. The securities purchase agreement with the purchasers provides that we may not use the proceeds (i) for the payment of debt (other than trade payables), (ii) for the redemption of any securities, (iii) for the settlement of litigation, or (iv) in violation of certain regulations.

S-24

Table of Contents**Dilution**

Purchasers of shares offered by this prospectus supplement and the accompanying prospectus will be diluted to the extent of the difference between the price you pay for each share of common stock and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of December 31, 2017 was approximately \$2,685,000, or \$0.25 per share of our common stock outstanding as of March 26, 2018. Net tangible book value per share as of December 31, 2017 is equal to our total tangible assets minus total related liabilities plus our non-controlling interests, all divided by the number of shares of common stock outstanding as of March 31, 2018.

After giving effect to this offering, and after deducting the estimated offering expenses payable by us, our as adjusted net tangible book value would have been approximately \$3,862,000, or approximately \$0.34 per share of common stock, as of December 31, 2017. This represents an immediate increase in the net tangible book value of approximately \$0.09 per share to our existing stockholders, and an immediate dilution of approximately \$1.93 per share to the investors in this offering. The following table illustrates this calculation on a per share basis.

Offering price per share of common stock offered	\$2.27
Net tangible book value per share of common stock as of December 31, 2017	\$0.25
Increase in net tangible book value per share attributable to new investors	\$0.09
Adjusted net tangible book value per share as of December 31, 2017	\$0.34
Dilution per share to new investors	\$1.93
Dilution as a percentage of offering price	85 %

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 26, 2018 which was 10,872,428, and does not include, as of that date:

76,157 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;

Edgar Filing: CESCA THERAPEUTICS INC. - Form 424B5

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;

1,255,125 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;

4,130,194 shares of our common stock issuable upon the exercise of outstanding vested warrants, having a weighted average exercise price of \$9.60 per share; and

up to 304,818 shares of common stock issuable upon the exercise of the warrants to be issued in the concurrent private placement.

To the extent that any of our outstanding options or warrants are exercised or preferred stock converted, we grant additional options under our stock option plans or issue additional warrants or preferred stock, or we issue additional shares of common stock in the future, there may be further dilution to the new investors.

S-25

Table of Contents

Description of Securities

In this offering, we are offering a maximum of 609,636 shares of our common stock. The material terms and provisions of our common stock are described under the caption “Description of Capital Stock” starting on page 7 of the accompanying prospectus.

The material terms and provisions of our outstanding warrants are described under the caption “Description of Warrants” starting on page 12 of the accompanying prospectus as modified by our subsequently filed periodic reports.

S-26

Table of Contents

Plan of Distribution

We have engaged H.C. Wainwright & Co., LLC (“H.C. Wainwright” or the “placement agent”) as our exclusive placement agent to solicit offers to purchase the shares of common stock in this offering. The placement agent is not purchasing or selling any of the shares we are offering, and it is not required to arrange the purchase or sale of any specific number of shares or dollar amount, but it has agreed to use reasonable best efforts to arrange for the sale of the shares. Therefore, we may not sell the entire amount of shares being offered. The placement agent may retain sub-agents and selected dealers in connection with this offering.

The placement agent proposes to arrange for the sale of the shares we are offering pursuant to this prospectus supplement to one or more investors through securities purchase agreements directly between the purchasers and us. All of the shares will be sold at the same price and, we expect, at a single closing. We established the price following negotiations with prospective investors and with reference to the prevailing market price of our common stock, recent trends in such price and other factors. It is possible that not all of the shares we are offering pursuant to this prospectus supplement will be sold at the closing, in which case our net proceeds would be reduced. We anticipate that the sale of the shares will be completed on the date indicated on the cover page of this prospectus supplement, subject to customary closing conditions. On the closing date, the following will occur:

we will receive funds in the amount of the aggregate purchase price;

H.C. Wainwright, as placement agent, will receive the placement agent fees in accordance with the terms of the placement agency agreement; and

we will deliver the shares to the investors.

In connection with this offering, the placement agent may distribute this prospectus supplement and the accompanying prospectus electronically.

We will pay the placement agent cash fees equal to seven percent (7.0%) of the gross proceeds from the sale of the shares in this offering. We also have agreed to pay the placement agent a non-accountable expense allowance of \$35,000. In addition, we have agreed to pay a cash fee equal to seven percent (7.0%) of the gross proceeds for any subsequent offering on Form S-3 (increasing to eight percent (8.0%) for an offering on Form S-1) during the term of the agreement. The following table shows the per share and total placement agent fee we will pay to the placement agent in connection with the sale of the shares, assuming the purchase of all of the shares we are offering.

Per share \$0.1589
Total \$96,871.16

The estimated offering expenses payable by us, excluding the placement agent fees, will be approximately \$110,000, which includes legal costs and various other fees associated with registering and listing the common stock. After deducting certain fees due to the placement agent and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$1.2 million.

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act of 1933, as amended (“Securities Act”), and liabilities arising from breaches and representations and warranties by us as contained in the placement agency agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

The engagement agreement between us and H.C. Wainwright is included as an exhibit to our Current Report on Form 8-K that we will file with the SEC in connection with this offering.

S-27

Table of Contents

H.C. Wainwright 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, H.C. Wainwright would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended (“Exchange Act”), including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares by H.C. Wainwright acting as principal. Under these rules and regulations, H.C. Wainwright:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Listing

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

Selling Restrictions

No action has been taken in any jurisdiction (except in the United States) that would permit a public offering of our common stock, or the possession, circulation or distribution of this prospectus supplement, the accompanying prospectus or any other material relating to us or our common stock in any jurisdiction where action for that purpose is required. Accordingly, our common stock may not be offered or sold, directly or indirectly, and none of this prospectus supplement, the accompanying prospectus or any other offering material or advertisements in connection with our common stock may be distributed or published, in or from any country or jurisdiction, except in compliance with any applicable rules and regulations of any such country or jurisdiction.

The placement agent may arrange to sell common stock offered hereby in certain jurisdictions outside the United States, either directly or through affiliates, where they are permitted to do so.

Affiliations

The placement agent and its affiliates have provided, and may in the future provide, various investment banking, financial advisory and other financial services to us and our affiliates for which they have received, and in the future may receive, advisory or transaction fees, as applicable. However, except as disclosed in this prospectus supplement, we have no present arrangements with the placement agent for any further services.

S-28

Table of Contents

Legal Matters

The validity of the shares of common stock offered by this prospectus supplement will be passed upon for us by Foley & Lardner LLP, Tampa, Florida.

Experts

The consolidated financial statements of the Company appearing in our Transition Report for the period from July 1, 2017 through December 31, 2017 filed on Form 10-K, 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.

Where You Can Find More Information

We file annual, quarterly and current reports, proxy and information statements and other information with the SEC. Our SEC filings, including the registration statement, are available to the public from the SEC's website at www.sec.gov. To receive copies of public records not posted to the SEC's website at prescribed rates, you may complete an online form at www.sec.gov, send a fax to (202) 772-9337 or submit a written request to the SEC, Office of FOIA/PA Operations, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information.

We also make available free of charge on our website, www.cescatherapeutics.com, all materials that we file electronically with the SEC, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Section 16 reports and amendments to those reports as soon as reasonably practicable after such materials are electronically filed with, or furnished to, the SEC. Information contained on our website or any other website is not incorporated by reference into this prospectus and does not constitute a part of this prospectus

Incorporation of Certain Documents by Reference

We are “incorporating by reference” specified documents that we file with the SEC, which means:

incorporated documents are considered part of this prospectus supplement;

we are disclosing important information to you by referring you to those documents; and

information that we file with the SEC will automatically update and supersede information contained in this prospectus supplement.

We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the registration statement on Form S-3 filed under the Securities Act with respect to securities offered by this prospectus and prior to the effectiveness of such registration statement and (ii) after the date of this prospectus and before the end of the offering of the securities pursuant to this prospectus:

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 period from July 1, 2017 through December 31, 2017, filed with the SEC on March 22, 2018;

S-29

Table of Contents

Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed with the SEC on November 14, 2017;

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 and March 16, 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

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

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

Table of Contents

Prospectus

\$30,000,000.00

Common Stock

Preferred Stock

Warrants

Debt Securities

Units

From time to time, we may offer up to \$30,000,000.00 of our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities (which will not exceed \$10,000,000.00) and/or units consisting of common stock, preferred stock, warrants and debt securities or any combination of these securities, in one or more transactions.

We will provide specific terms of these offerings and securities in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement, and any documents incorporated by reference, may also add, update or change information contained in this prospectus. You should read this prospectus, the applicable prospectus supplement, any documents incorporated by reference and any related free writing prospectus carefully before buying any of the securities being offered.

We may offer and sell these securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis.

Our common stock is listed on the NASDAQ Capital Market (“NASDAQ”) under the symbol “KOOL.” The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, of the securities covered by the applicable prospectus supplement. The aggregate market value of our outstanding common stock held by non-affiliates was approximately \$8,047,000 based on 3,008,883 shares of outstanding common stock, of which 779,872 shares are held by affiliates, and a price of \$3.61 per share, which was the last reported sale price of our common stock as quoted on NASDAQ on May 19, 2016. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on, and includes, the date of this prospectus.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING “RISK FACTORS” CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS, AND UNDER SIMILAR HEADINGS IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS.

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

The date of this prospectus is August 1, 2016.

Table of Contents

TABLE OF CONTENTS

	<u>PAGE</u>
<u>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	1
<u>ABOUT THIS PROSPECTUS</u>	1
<u>ABOUT CESCA THERAPEUTICS INC.</u>	3
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	5
<u>INCORPORATION OF INFORMATION BY REFERENCE</u>	5
<u>RISK FACTORS</u>	7
<u>DESCRIPTION OF SECURITIES WE MAY OFFER</u>	7
<u>DESCRIPTION OF CAPITAL STOCK</u>	7
<u>DESCRIPTION OF WARRANTS</u>	12
<u>DESCRIPTION OF DEBT SECURITIES</u>	14
<u>DESCRIPTION OF UNITS</u>	16
<u>USE OF PROCEEDS</u>	16
<u>PLAN OF DISTRIBUTION</u>	17
<u>LEGAL MATTERS</u>	19
<u>EXPERTS</u>	19

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements in this prospectus and in any prospectus supplement we may file constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934 as amended (the “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 or other comparable terminology.

Any forward looking statements contained in this prospectus or any prospectus supplement 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” and in other sections of our Annual Report on Form 10-K for the year ended June 30, 2015, our Quarterly Reports on Form 10-Q for the quarterly periods ended September 30, 2015, December 31, 2015 and March 31, 2016, all filed with the SEC, as well as in our 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.

ABOUT THIS PROSPECTUS

This document is called a prospectus and is part of a registration statement that we have filed with the SEC, using a “shelf” registration process. Under this shelf registration process, we may, from time to time, offer shares of our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities and/or units consisting of common stock, preferred stock, warrants and debt securities or any combination of these securities, in one or more transactions and in amounts we will determine from time to time, up to a total dollar amount of \$30,000,000.00.

This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities described in this prospectus, we will provide a prospectus supplement or information that is incorporated by reference into this prospectus, containing more specific information about the terms of the securities that we are offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings and securities. This prospectus, together with applicable prospectus supplements, any information incorporated by reference and any related free writing prospectuses, includes all material information relating to these offerings and securities. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus, including without limitation, a discussion of any risk factors or other special considerations that apply to these offerings or securities or the specific plan of distribution. If there is any inconsistency between the information in this prospectus and a prospectus supplement or information incorporated by reference having a later date, you should rely on the information in that prospectus supplement or incorporated information having a later date. We urge you to read carefully this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Where You Can Find Additional Information," before buying any of the securities being offered.

Table of Contents

You should rely only on the information we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus.

Neither the delivery of this prospectus nor any sale made under it implies that there has been no change in our affairs or that the information in this prospectus is correct as of any date after the date of this prospectus. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under “Where You Can Find Additional Information.” **THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES, UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.**

In this prospectus, unless the context otherwise requires, references to “we,” “us,” “our” or similar terms, as well as references to “Cesca” or the “Company,” refer to Cesca Therapeutics Inc., its subsidiaries and predecessors.

Table of Contents

ABOUT CESCA THERAPEUTICS INC.

Overview

Cesca Therapeutics develops and markets integrated cellular therapies and delivery systems that advance the safe and effective practice of regenerative medicine. The Company is a leader in the development and manufacture of automated blood and bone marrow processing systems that enable the separation, processing and preservation of cell and tissue therapy products. The Company was founded in 1986 and is headquartered in Rancho Cordova, California. Cesca's strategy is to continue to enhance the performance and competitiveness of its flagship product lines in the cord blood banking arena while expanding into significant new growth opportunity areas in point of care therapeutics. The Company is developing a number of offerings for the delivery of autologous cell therapies that address significant unmet medical needs and expects to partner with other pioneers in the stem cell arena to accelerate clinical evaluations, expedite regulatory approvals and penetrate the market.

On February 18, 2014, TotipotentRX Corporation ("TotipotentRX," "Totipotent" or "TRX"), merged with and into ThermoGenesis Corp ("ThermoGenesis"). TRX was a cellular therapeutics development organization with a pipeline of human point-of-care experimental therapies in early stage clinical studies using bone marrow and blood derived cells and growth factors. The merged company was renamed Cesca Therapeutics Inc. and is now positioned as a fully integrated regenerative medicine company with the ability to research, design and develop the devices, disposables and protocols necessary to facilitate the delivery of cell therapies at the point of care. Cesca remains a corporation organized under the laws of the State of Delaware and, unless otherwise noted, any information regarding us and our business includes information relating to TotipotentRX.

In September 2015, Cesca undertook a restructuring initiative to reduce the costs associated with its traditional cord blood banking products. The restructuring resulted in a reduction of approximately 15 positions in various functions. This action, combined with the elimination of a number of open positions that will not be back-filled, is expected to reduce annual operating costs primarily related to cord blood banking products by approximately \$3.3 million. The Company incurred a restructuring charge of approximately \$190,000 during the three months ended September 30, 2015, recorded as a component of general and administrative expense.

Stem Cell Therapies

Cesca Therapeutics has nine cell therapies at various stages of clinical development but all with human data. These include critical limb ischemia, acute myocardial infarction, non-healing ulcers, ischemic stroke, spinal fusion, osteoarthritis, non-union fractures and avascular necrosis. The Company also has an active bone marrow transplantation program. The current emphasis is in three particular areas, as follows:

Critical Limb Ischemia (“CLI”) – Cesca received FDA approval on June 12, 2015 for an Investigational Device Exemption (“IDE”) for its pivotal clinical trial (the “CLIRST III” study) to evaluate the Company’s SurgWerks™- CLI System for the treatment of patients with late-stage (Rutherford 5), no option, critical limb ischemia. CLI is the last progressive phase of peripheral artery disease, where the leg is so deprived of blood flow and oxygen, that it has visible signs of gangrenous ulceration. The Company has supported or completed two prior feasibility studies in CLI, one delivering a Cesca platform prepared autologous bone marrow cell dose into the afflicted leg artery of 13 human subjects and other delivering a similar Cesca platform produced cell dose into the afflicted limb muscles of 17 human subjects.

On May 31, 2016, the Company submitted an IDE supplement to the CLIRST III study to the FDA. In the supplement, the Company proposed Transcutaneous Oxygen Pressure (TcPO₂) as a surrogate endpoint which is a non-invasive, clinically, accepted method for measuring the amount of oxygen diffused from capillaries through the skin, and reflects both the oxygen supply and the metabolic demand in a specific region. The supplement also details changes to the protocol that are expected to improve both patient enrollment and study flow. These include expanding the cohort to include both “no option” and “poor option” CLI patients, removing unnecessary patient testing requirements, improving the mapping and injection procedure, and eliminating the Blinded Independent Review Committee for enrollment and endpoint analysis. The supplement also expands the number of secondary endpoints and extends the follow-up period beyond an observational phase to facilitate collection of additional data in support of reimbursement from The Centers for Medicare and Medicaid Services.

Table of Contents

Acute Myocardial Infarction (“AMI”) – The SurgWerks™ AMI System has been designed to facilitate an adjunct treatment for patients who have suffered an acute ST-elevated myocardial infarction (“STEMI”), a particular and most threatening type of heart attack. Therapies delivered using the SurgWerks-AMI system are intended to minimize the adverse remodeling of the heart post-STEMI. The entire four-step bedside treatment is designed to take less than 120 minutes to complete, in a single surgical procedure, in the heart catheterization laboratory of a hospital.

Bone Marrow Transplant (“BMT”) – Cesca has two initiatives within its BMT program: development of the CellWerks™ technology platform for clinical and intra-laboratory use, and the delivery of BMT laboratory services through the Company’s TotipotentRX subsidiary in India. The CellWerks Platform is designed for optimal laboratory preparation of hematopoietic stem cells used in BMT and bio-banking. The technology platform includes a “smart vision” control module, a corresponding disposable for processing blood and bone marrow sourced tissue and sample tracking software enabling GMP compliance. Cell analytics for laboratory and point-of-care use are under development and will complete the CellWerks offering. TotipotentRX laboratory services, a collaboration with Fortis Healthcare, are aimed at serving the Indian clinical market for cell therapy under good tissue practices compliance.

Products

Cesca’s product offerings include:

The SurgWerks™ System (in development) – a proprietary system comprised of the SurgWerks Processing Platform, including devices and analytics, and indication-specific SurgWerks Procedure Kits for use in regenerative stem cell therapy at the point-of-care for vascular and orthopedic diseases.

The CellWerks™ System (in development) – a proprietary cell processing system with associated analytics for intra-laboratory preparation of adult stem cells from bone marrow or blood.

The AutoXpress® System (“AXP”) – a proprietary automated device and companion sterile disposable for concentrating hematopoietic stem cells from cord blood.

The MarrowXpress™ System – a derivative product of the AXP and its accompanying sterile disposable for the isolation and concentration of hematopoietic stem cells from bone marrow.

The BioArchive® System – an automated cryogenic device used by cord blood banks for the cryopreservation and storage of cord blood stem cell concentrate for future use.

Manual Disposables – non-AXP bag sets for use in the processing and cryogenic storage of cord blood. They can be stored in the automated BioArchive device or in conventional dewars.

Our business strategy involves:

A focus on insufficiently met medical needs: our initial focus is on ischemic cardiovascular indications (CLI and AMI) with oncology and orthopedic protocols to follow.

A unique point-of-care approach: our CLI and AMI cell therapies require a single visit to the operating room for a treatment lasting only 90-120 minutes.

4

Table of Contents

Delivery of a fully integrated offering: Cesca delivers all the hardware, software and disposable components necessary for the aspiration and processing of bone marrow and the separation and concentration of a therapeutic dose of stem cells for re-injection into the patient at the point of care.

The use of autologous, bone marrow derived stem cells: Cesca's protocols are potentially safer because the donor and the recipient of the stem cell preparation is the same individual.

A highly resource efficient operating model: Cesca leverages its India-based clinical research organization embedded within the Fortis network of hospitals for a highly cost-effective approach to feasibility studies and early stage clinical trials.

Multiple shots on goal: Cesca has nine protocols at various stages of clinical development.

Patent protection: Cesca has over 30 issued patents globally with several more applications in the pipeline.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, with respect to the securities covered by this prospectus. This prospectus, which is a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information with respect to us and the securities covered by this prospectus, please see the registration statement and the exhibits filed with the registration statement. A copy of the registration statement and the exhibits filed with the registration statement may be inspected without charge at the Public Reference Room maintained by the SEC, located 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 also maintains an Internet website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the website is <http://www.sec.gov>.

We are subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, we file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information are available for inspection and copying at the Public Reference Room and website of the SEC referred to above. We maintain a website at <http://www.cescatherapeutics.com>. You may access our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and amendments to those reports filed pursuant to Sections 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

INCORPORATION OF 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 we incorporate by reference is an important part of this prospectus, and certain information that we will later file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, as well as any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of the initial registration statement and prior to the effectiveness of this registration statement, and any filings made after the date of this prospectus until we sell all of the securities under this prospectus, except that we do not incorporate any document or portion of a document that was furnished and deemed by the rules of the SEC not to have been filed:

Our Annual Report on Form 10-K for the fiscal year ended June 30, 2015, filed with the SEC on September 17, 2015 and as amended on September 24, 2015;

Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed with the SEC on November 16, 2015; Quarterly Report on Form 10-Q for the quarter ended December 31, 2015, filed with the SEC on February 16, 2016; and Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed with the SEC on May 13, 2016;

Table of Contents

Our Current Reports on Form 8-K filed with the SEC on September 1, 2015, September 15, 2015, September 29, 2015, September 30, 2015, October 16, 2015, October 28, 2015, November 5, 2015, December 16, 2015, February 3, 2016, February 4, 2016, February 16, 2016, March 1, 2016, March 2, 2016, March 4, 2016, March 10, 2016, March 21, 2016, June 20, 2016 and July 12, 2016;

Our definitive proxy statement on Schedule 14A filed on January 14, 2016 for our annual meeting of stockholders held on March 2, 2016; and

The description of our common stock set forth in Item 1 of our Registration Statement on Form 8-A filed on November 17, 1987 pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

Additionally, all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after (i) the date of the initial registration statement and prior to effectiveness of the registration statement; and (ii) the date of this prospectus and prior to the termination or completion of this offering, shall be deemed to be incorporated by reference in this prospectus and to be part hereof from the date of filing of such reports and other documents. Any information that we subsequently file with the SEC that is incorporated by reference as described above will automatically update and supersede any previous information that is part of this prospectus.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, upon written or oral request of any such person, a copy of any and all of the information that has been or may be incorporated by reference in this prospectus, other than exhibits to such documents. Requests for such copies should be directed to our Assistant Corporate Secretary at 2711 Citrus Road, Rancho Cordova, California 95742, Telephone (916) 858-5100.

Table of Contents

RISK FACTORS

Investing in our securities involves significant risks. You should review carefully the risks and uncertainties described under the heading “Risk Factors” contained in, or incorporated into, the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference herein or therein. Each of the referenced risks and uncertainties could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities. Additional risks not known to us or that we believe are immaterial may also adversely affect our business, operating results and financial condition and the value of an investment in our securities.

DESCRIPTION OF SECURITIES WE MAY OFFER

We may offer, from time to time, shares of our common stock, shares of our preferred stock, warrants to purchase common stock or preferred stock, debt securities or units to purchase shares of common stock, preferred stock, warrants, debt securities or a combination of these securities, under this prospectus at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. See “Description of Capital Stock,” “Description of Warrants,” “Description of Debt Securities” and “Description of Units” below. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate principal amount or aggregate offering price;

rates and times of payment of interest or dividends, if any;

redemption, conversion or sinking fund terms,
if any;

voting or other rights, if any;

conversion prices, if any; and

important federal income tax considerations.

The prospectus supplement and any related free writing prospectus also may supplement, or, as applicable, add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

The terms of any particular offering, the initial offering price and the net proceeds to us will be contained in the prospectus supplement, information incorporated by reference or free writing prospectus relating to such offering.

DESCRIPTION OF CAPITAL STOCK

The description below of our capital stock and provisions of our amended and restated certificate of incorporation (our “Certificate of Incorporation”) and bylaws (our “Bylaws”) are summaries and are qualified by reference to our Certificate of Incorporation and Bylaws. These documents are filed as exhibits to the registration statement of which this prospectus is a part.

Table of Contents

Our Certificate of Incorporation authorizes the issuance of up to 350,000,000 shares of common stock, par value \$0.001 per share, and 2,000,000 shares of preferred stock, par value \$0.001 per share. The rights and preferences of the preferred stock may be established from time to time by our board of directors.

Common Stock

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, except matters that relate only to one or more of the series of preferred stock, and each holder does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose. According to our Bylaws, all matters are decided by the vote of a majority in voting interest of the shareholders present in person or by proxy and voting at any meeting of the shareholders during which a quorum is present, except as otherwise provided in the Certificate of Incorporation, in the Bylaws or by law.

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

Holders of common stock have no preemptive or conversion rights or other subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and the shares of common stock offered by us in this offering, when issued and paid for, will be fully paid and nonassessable. 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.

Preferred Stock

Under the terms of our amended and restated articles of incorporation, the board of directors is authorized, subject to any limitations prescribed by law, without stockholder approval, to issue such shares of preferred stock in one or more series. Each such series of preferred stock shall have such rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be determined by the board of directors.

The purpose of authorizing the board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, a majority of our outstanding voting stock.

The effects of issuing preferred stock could include one or more of the following:

decreasing the amount of earnings and assets available for distribution to holders of common stock;

restricting dividends on the common stock;

diluting the voting power of the common stock;

impairing the liquidation rights of the common stock; or

delaying, deferring or preventing changes in our control or management.

As of the date of this prospectus, there are no shares of preferred stock outstanding.

Table of Contents

Effect of Certain Provisions of our Certificate of Incorporation and Bylaws and the Delaware Anti-Takeover Statute

Certificate of Incorporation and Bylaws

Some provisions of Delaware law and our Certificate of Incorporation and Bylaws contain provisions that could make the following transactions more difficult:

acquisition of us by means of a tender offer;

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

removal of our incumbent officers and directors.

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

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

Stockholder Meetings. Our Bylaws provide that a special meeting of stockholders may be called only by the board of directors.

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

Board of Directors Vacancies. Under our Bylaws, any vacancy on the board of directors, including a vacancy resulting from an enlargement of the board of directors, may be filled by vote of a majority of the remaining directors. The shareholders may elect a director or directors at any time to fill any vacancy or vacancies not filled by the directors.

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

Table of Contents

Delaware Anti-Takeover Statute

We are subject to Section 203 of the Delaware General Corporation Law (“DGCL”). This law prohibits a publicly held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by persons who are directors and also officers and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines “business combination” to include:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of our assets involving the interested stockholder;

in general, any transaction that results in the issuance or transfer by us of any of our stock to the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 of the DGCL defines an “interested stockholder” as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Limitation of Liability

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

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

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

Table of Contents

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

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

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

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

We believe that the foregoing policies and provisions of our Certificate of Incorporation and Bylaws are necessary to attract and retain qualified officers and directors. Insofar as indemnification for liabilities arising under the Securities Act may be permitted with respect to our directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Listing

Our common stock is listed on the NASDAQ under the symbol “KOOL.”

Transfer Agent and Registrar

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

Table of Contents

DESCRIPTION OF WARRANTS

General

We may issue warrants to purchase common stock or preferred stock. We may issue the warrants independently or together with any underlying securities, and the warrants may be attached or separate from the underlying securities. We may also issue a series of warrants under a separate warrant agreement to be entered into between us and a warrant agent. The warrant agent will act solely as our agent in connection with the warrants of such series and will not assume any obligation or relationship of agency for or with holders or beneficial owners of warrants.

The following description is a summary of selected provisions relating to the warrants that we may issue. The summary is not complete. When warrants are offered in the future, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the particular terms of those securities and the extent to which these general provisions may apply. The specific terms of the warrants as described in a prospectus supplement, information incorporated by reference, or free writing prospectus will supplement and, if applicable, may modify or replace the general terms described in this section.

This summary and any description of warrants in the applicable prospectus supplement, information incorporated by reference or free writing prospectus is subject to and is qualified in its entirety by reference to all the provisions of any specific warrant document or agreement. We will file each of these documents, as applicable, with the SEC and incorporate them by reference as an exhibit to the registration statement of which this prospectus is a part on or before the time we issue a series of warrants. See “Where You Can Find Additional Information” and “Incorporation of Information by Reference” above for information on how to obtain a copy of a warrant document when it is filed.

When we refer to a series of warrants, we mean all warrants issued as part of the same series under the applicable warrant agreement.

Terms

The applicable prospectus supplement, information incorporated by reference or free writing prospectus, may describe the terms of any warrants that we may offer, including, but not limited to, the following:

the title of the warrants;

the total number of warrants;

the price or prices at which the warrants will be issued;

the price or prices at which the warrants may be exercised;

the currency or currencies that investors may use to pay for the warrants;

the date on which the right to exercise the warrants will commence and the date on which the right will expire;

whether the warrants will be issued in registered form or bearer form;

information with respect to book-entry procedures, if any;

Table of Contents

if applicable, the minimum or maximum amount of warrants that may be exercised at any one time;

if applicable, the designation and terms of the underlying securities with which the warrants are issued and the number of warrants issued with each underlying security;

if applicable, the date on and after which the warrants and the related underlying securities will be separately transferable;

if applicable, a discussion of material United States federal income tax considerations;

if applicable, the terms of redemption of the warrants;

the identity of the warrant agent, if any;

the procedures and conditions relating to the exercise of the warrants; and

any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Warrant Agreement

We may issue the warrants in one or more series under one or more warrant agreements, each to be entered into between us and a bank, trust company or other financial institution as warrant agent. We may add, replace or terminate warrant agents from time to time. We may also choose to act as our own warrant agent or may choose one of our subsidiaries to do so.

The warrant agent under a warrant agreement will act solely as our agent in connection with the warrants issued under that agreement. Any holder of warrants may, without the consent of any other person, enforce by appropriate legal action, on its own behalf, its right to exercise those warrants in accordance with their terms.

Form, Exchange and Transfer

We may issue the warrants in registered form or bearer form. Warrants issued in registered form, *i.e.*, book-entry form, will be represented by a global security registered in the name of a depository, which will be the holder of all the warrants represented by the global security. Those investors who own beneficial interests in a global warrant will do so through participants in the depository's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. In addition, we may issue warrants in non-global form, *i.e.*, bearer form. If any warrants are issued in non-global form, warrant certificates may be exchanged for new warrant certificates of different denominations, and holders may exchange, transfer or exercise their warrants at the warrant agent's office or any other office indicated in the applicable prospectus supplement, information incorporated by reference or free writing prospectus.

Prior to the exercise of their warrants, holders of warrants exercisable for shares of common stock or preferred stock will not have any rights of holders of common stock or preferred stock purchasable upon such exercise and will not be entitled to dividend payments, if any, or voting rights of the common stock or preferred stock purchasable upon such exercise.

Table of Contents

Exercise of Warrants

A warrant will entitle the holder to purchase for cash an amount of securities at an exercise price that will be stated in, or that will be determinable as described in, the applicable prospectus supplement, information incorporated by reference or free writing prospectus. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable offering material. After the close of business on the expiration date, unexercised warrants will become void. Warrants may be redeemed as set forth in the applicable offering material.

Warrants may be exercised as set forth in the applicable offering material. Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable offering material, we will forward, as soon as practicable, the securities purchasable upon such exercise. If less than all of the warrants represented by such warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

DESCRIPTION OF DEBT SECURITIES

General

We may issue debt securities which may or may not be converted into shares of common stock. In connection with the issuance of any debt securities, we do not intend to issue them pursuant to a trust indenture to the extent such issuance without an indenture is exempt under the terms of the Trust Indenture Act of 1939 (“Trust Indenture Act”). However, if a trust indenture is requested by a placement agent, underwriter or broker-dealer as a condition of the financing or otherwise required pursuant to an exemption under the Trust Indenture Act, we will provide and enter into a trust indenture. If a trust indenture is entered into, we do not intend to register the trust indenture under the Trust Indenture pursuant to an applicable exemption. Under Section 304(a)(9) of the Trust Indenture Act, the Trust Indenture Act does not apply to any security which is to be issued under an indenture which limits the aggregate principal amount of securities at any time outstanding thereunder to \$10,000,000.00. We do not intend to issue debt securities, if any, pursuant to a trust indenture that will exceed \$10,000,000.00. If a trust indenture is entered into, we will file the trust indenture as an exhibit on Form 8-K before making any offer of debt securities.

The following description is a summary of selected provisions relating to the debt securities that we may issue. The summary is not complete. When debt securities are offered in the future, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the particular terms of those securities and the extent to which these general provisions may apply. The specific terms of the debt securities as described in a prospectus supplement, information incorporated by reference, or free writing prospectus will supplement and, if applicable, may modify or replace the general terms described in this section.

This summary and any description of debt securities in the applicable prospectus supplement, information incorporated by reference or free writing prospectus is subject to and is qualified in its entirety by reference to all the provisions of any specific debt securities document or agreement. We will file each of these documents, as applicable, with the SEC and incorporate them by reference as an exhibit to the registration statement of which this prospectus is a part on or before the time we issue a series of warrants. See “Where You Can Find Additional Information” and “Incorporation of Information by Reference” above for information on how to obtain a copy of a warrant document when it is filed.

The indenture agent under an indenture agreement, if any, will act solely as our agent in connection with the debt securities issued under that agreement. Any holder of debt securities may, without the consent of any other person, enforce by appropriate legal action, on its own behalf, its right to exercise those debt securities in accordance with their terms. When we refer to a series of debt securities, we mean all debt securities issued as part of the same series under the applicable indenture.

Table of Contents

Terms

The applicable prospectus supplement, information incorporated by reference or free writing prospectus, may describe the terms of any debt securities that we may offer, including, but not limited to, the following:

the title of the debt securities;

the total amount of the debt securities;

the amount or amounts of the debt securities will be issued and interest rate;

the conversion price at which the debt securities may be converted;

the date on which the right to exercise the debt securities will commence and the date on which the right will expire;

if applicable, the minimum or maximum amount of debt securities that may be exercise at any one time;

if applicable, the designation and terms of the underlying securities with which the debt securities are issued and the amount of debt securities issued with each underlying security;

if applicable, a discussion of material United States federal income tax consideration;

if applicable, the terms of the payoff of the debt securities;

the identity of the indenture agent, if any;

the procedures and conditions relating to the exercise of the debt securities; and

any other terms of the debt securities, including terms, procedure and limitation relating to the exchange or exercise of the debt securities.

Form, Exchange and Transfer

We may issue the debt securities in registered form or bearer form. Debt securities issued in registered form, *i.e.*, book-entry form, will be represented by a global security registered in the name of a depository, which will be the holder of all the debt securities represented by the global security. Those investors who own beneficial interests in a global debt securities will do so through participants in the depository's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. In addition, we may issue debt securities in non-global form, *i.e.*, bearer form. If any debt securities are issued in non-global form, debt securities certificates may be exchanged for new debt securities certificates of different denominations, and holders may exchange, transfer or exercise their debt securities at the indenture agent's office, if any, or any other office indicated in the applicable prospectus supplement, information incorporated by reference or free writing prospectus.

Prior to the exercise of their debt securities, holders of debt securities exercisable for shares of common stock or preferred will not have any rights of holders of common stock or preferred stock and will not be entitled to dividend payments, if any, or voting rights of the shares of common stock or preferred stock.

Conversion of Debt Securities

A debt security may entitle the holder to purchase in exchange for the extinguishment of debt an amount of securities at an exercise price that will be stated in the debt security. Debt securities may be converted at any time up to the close of business on the expiration date set forth in the terms of such debt security. After the close of business on the expiration date, debt securities not exercised will be paid in accordance with their terms.

Table of Contents

Debt securities may be converted as set forth in the applicable offering material. Upon receipt of a notice of conversion properly completed and duly executed at the corporate trust office of the indenture agent, if any, or to us, we will forward, as soon as practicable, the securities purchasable upon such exercise. If less than all of the debt security represented by such security is converted, a new debt security will be issued for the remaining debt security.

DESCRIPTION OF UNITS

We may issue units composed of any combination of our common stock, preferred stock, warrants and debt securities. We will issue each unit so that the holder of the unit is also the holder of each security included in the unit. As a result, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The following description is a summary of selected provisions relating to units that we may offer. The summary is not complete. When units are offered in the future, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the particular terms of those securities and the extent to which these general provisions may apply. The specific terms of the units as described in a prospectus supplement, information incorporated by reference, or free writing prospectus will supplement and, if applicable, may modify or replace the general terms described in this section.

This summary and any description of units in the applicable prospectus supplement, information incorporated by reference or free writing prospectus is subject to and is qualified in its entirety by reference to the unit agreement, collateral arrangements and depositary arrangements, if applicable. We will file each of these documents, as applicable, with the SEC and incorporate them by reference as an exhibit to the registration statement of which this prospectus is a part on or before the time we issue a series of units. See “Where You Can Find Additional Information” and “Incorporation of Information by Reference” above for information on how to obtain a copy of a document when it is filed.

The applicable prospectus supplement, information incorporated by reference or free writing prospectus may describe:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities composing the units;

whether the units will be issued in fully registered or global form; and

any other terms of the units.

The applicable provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Warrants” and “Description of Debt Securities” above, will apply to each unit and to each security included in each unit, respectively.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, information incorporated by reference or free writing prospectus, we intend to use the net proceeds from the sale of securities to fund our growth plans, for working capital, and for other general corporate purposes, including capital expenditures related to our growth. We may also use a portion of the net proceeds to acquire or invest in businesses whom, from time to time, we engage and explore the possibility of strategic partnering or investment.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus from time to time in one or more transactions, including, without limitation:

through agents;

to or through underwriters;

through broker-dealers (acting as agent or principal);

directly by us to purchasers (including our affiliates and stockholders), through a specific bidding or auction process, a rights offering or otherwise;

through a combination of any such methods of sale; or

through any other methods described in a prospectus supplement.

The distribution of securities may be effected, from time to time, in one or more transactions, including:

block transactions (which may involve crosses) and transactions on the Nasdaq or any other organized market where the securities may be traded;

purchases by a broker-dealer as principal and resale by the broker-dealer for its own account pursuant to a prospectus supplement;

ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;

sales “at the market” to or through a market maker or into an existing trading market, on an exchange or otherwise; and

sales in other ways not involving market makers or established trading markets, including direct sales to purchasers.

The securities may be sold at a fixed price or prices, which may be changed, or at market prices prevailing at the time of sale, at prices relating to the prevailing market prices or at negotiated prices. The consideration may be cash or another form negotiated by the parties. Agents, underwriters or broker-dealers may be paid compensation for offering and selling the securities. That compensation may be in the form of discounts, concessions or commissions to be received from us or from the purchasers of the securities. Dealers and agents participating in the distribution of the securities may be deemed to be underwriters, and compensation received by them on resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act. If such dealers or agents were deemed to be underwriters, they may be subject to statutory liabilities under the Securities Act.

We may also make direct sales through subscription rights distributed to our existing stockholders on a pro rata basis, which may or may not be transferable. In any distribution of subscription rights to our stockholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

Some or all of the securities that we offer through this prospectus may be new issues of securities with no established trading market. Any underwriters to whom we sell our securities for public offering and sale may make a market in those securities, but they will not be obligated to do so and they may discontinue any market making at any time without notice. Accordingly, we cannot assure you of the liquidity of, or continued trading markets for, any securities that we offer.

Table of Contents

Agents may, from time to time, solicit offers to purchase the securities. If required, we will name in the applicable prospectus supplement, document incorporated by reference or free writing prospectus, as applicable, any agent involved in the offer or sale of the securities and set forth any compensation payable to the agent. Unless otherwise indicated, any agent will be acting on a best efforts basis for the period of its appointment. Any agent selling the securities covered by this prospectus may be deemed to be an underwriter of the securities.

If underwriters are used in an offering, securities will be acquired by the underwriters for their own account and may be resold, from time to time, in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale, or under delayed delivery contracts or other contractual commitments. Securities may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. If an underwriter or underwriters are used in the sale of securities, an underwriting agreement will be executed with the underwriter or underwriters at the time an agreement for the sale is reached. The applicable prospectus supplement will set forth the managing underwriter or underwriters, as well as any other underwriter or underwriters, with respect to a particular underwritten offering of securities, and will set forth the terms of the transactions, including compensation of the underwriters and dealers and the public offering price, if applicable. This prospectus, the applicable prospectus supplement and any applicable free writing prospectus will be used by the underwriters to resell the securities.

If a dealer is used in the sale of the securities, we, or an underwriter, will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. To the extent required, we will set forth in the prospectus supplement, document incorporated by reference or free writing prospectus, as applicable, the name of the dealer and the terms of the transactions.

We may directly solicit offers to purchase the securities and may make sales of securities directly to institutional investors or others. These persons may be deemed to be underwriters with respect to any resale of the securities. To the extent required, the prospectus supplement, document incorporated by reference or free writing prospectus, as applicable, will describe the terms of any such sales, including the terms of any bidding or auction process, if used.

Agents, underwriters and dealers may be entitled under agreements which may be entered into with us to indemnification by us against specified liabilities, including liabilities incurred under the Securities Act, or to contribution by us to payments they may be required to make in respect of such liabilities. If required, the prospectus supplement, document incorporated by reference or free writing prospectus, as applicable, will describe the terms and conditions of such indemnification or contribution. Some of the agents, underwriters or dealers, or their affiliates may be customers of, engage in transactions with or perform services for us or our subsidiaries or affiliates in the ordinary course of business.

Under the securities laws of some states, the securities offered by this prospectus may be sold in those states only through registered or licensed brokers or dealers.

Any person participating in the distribution of common stock registered under the registration statement that includes this prospectus will be subject to applicable provisions of the Exchange Act, and the applicable SEC rules and regulations, including, among others, Regulation M, which may limit the timing of purchases and sales of any of our common stock by any such person. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of our common stock to engage in market-making activities with respect to our common stock. These restrictions may affect the marketability of our common stock and the ability of any person or entity to engage in market-making activities with respect to our common stock.

Table of Contents

Certain persons participating in an offering may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act that stabilize, maintain or otherwise affect the price of the offered securities. If any such activities will occur, they will be described in the applicable prospectus supplement.

In compliance with the guidelines of the Financial Industry Regulatory Authority (“FINRA”), the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of any offering pursuant to this prospectus and any applicable prospectus supplement, as the case may be.

If more than 10% of the net proceeds of any offering of securities made under this prospectus will be received by FINRA members participating in the offering or affiliates or associated persons of such FINRA members, the offering will be conducted in accordance with FINRA Conduct Rule 5110(h).

So long as the aggregate market value of our voting and non-voting common equity held by non-affiliates is less than \$75,000,000.00 and so long as required by the rules of the SEC, the amount of securities we may offer hereunder will be limited such that the aggregate market value of securities sold by us during a period of 12 calendar months cannot exceed one-third of the aggregate market value of the voting and non-voting common equity held by non-affiliates.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

LEGAL MATTERS

Dorsey & Whitney LLP will pass upon legal matters in connection with the validity of the securities offered hereby for us.

EXPERTS

The consolidated financial statements of the Company appearing in our Annual Report on Form 10-K for the year ended June 30, 2015 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 the Company for the year ended June 30, 2014 appearing in our Annual Report on Form 10-K for the year ended June 30, 2015 have been audited by Ernst & Young 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.

Table of Contents

Prospectus Supplement

H.C. WAINWRIGHT & CO.

The date of this prospectus supplement is March 26, 2018