As filed with the Securities and Exchange Commission on November 25, 2015

Registration No. 333-205193

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Amendment No. 1 to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

INTERNATIONAL STEM CELL CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	2834	20-4494098
(State or other jurisdiction of Incorporation or organization)	(Primary Standard Industrial Classification Code number)	(I.R.S. Employer Identification No.)

5950 Priestly Drive
Carlsbad, CA 92008
(760) 940-6383
(Address and telephone number of principal executive offices)

Russell Kern
Chief Scientific Officer
5950 Priestly Drive
Carlsbad, CA 92008
(760) 940-6383
(Name, address and telephone number of agent for service)

Copies to:
Douglas Rein
Patrick O'Malley
DLA PIPER LLP (US)
4365 Executive Drive, Suite 1100
San Diego, CA 92121-2133
(858) 677-1443

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered(1)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Class A Units consisting of: (i) Common Stock, par value $0.001 per share (ii) Warrants to purchase Common Stock(3) Class B Units consisting of: (i) Series I Convertible Preferred Stock, par value $0.001 per share (ii) Warrants to purchase Common Stock(3) Common Stock issuable upon exercise of Warrants to purchase Common Stock	$	$
Shares of Common Stock issuable upon exercise of the Warrants	$	$
Placement Agent Warrants to purchase shares of common stock(3)		
Shares of Common Stock issuable upon exercise of the Placement Agent Warrants	$	$
Total	$6,000,000	$605(4)

(1) Pursuant to Rule 416 under the Securities Act, this registration statement also covers such indeterminate number of additional shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends, recapitalizations or similar transactions.

(2) Calculated pursuant to Rule 457(o) on the basis of the maximum aggregate offering price of all the securities being registered.

(3) The warrants will be issued for no additional consideration. No registration fee is required pursuant to Rule 457(g).

(4) $698 paid with initial filing of this registration statement

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

Table of Contents

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

SUBJECT TO COMPLETION, DATED NOVEMBER 25, 2015

PRELIMINARY PROSPECTUS

INTERNATIONAL STEM CELL CORPORATION

Up to $
Class A Units consisting of Common Stock and Warrants
and Class B Units consisting of
Series I Convertible Preferred Stock and Warrants

(shares of Common Stock Underlying the Warrants)

We are offering up to $[ ] of Class A Units (consisting of one share of our common stock, a Series A warrant to purchase one share of our common stock at an exercise price equal to the public offering price of the Class A Units, ("Series A warrant"), and a Series B warrant to purchase [ ] of a share of our common stock at an exercise price equal to [ ]% of the public offering price of the Class A Units, ("Series B warrant")). The shares of common stock, Series A warrants and Series B warrants part of a Class A Unit are immediately separable and will be issued separately in this offering. Offers will be solicited only from persons who qualify as "institutional investors" under the laws of the state of their domicile or residence. Our officers and their affiliates may purchase a portion of the securities being offered hereby on the same terms as unaffiliated purchasers.

We are also offering to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing Class A Units, to purchase Class B Units. Each Class B Unit will consist of one share of our Series I Convertible Preferred Stock, or the Series I Preferred, with a stated value of $1,000 and convertible into shares of our common stock at the public offering price of the Class A Units, together with the equivalent number of Series A warrants and Series B warrants as would have been issued to such purchaser if they had purchased Class A Units based on the public offering price. The Series I Preferred do not generally have any voting rights but are convertible into shares of common stock. The shares of Series I Preferred, Series A warrants and Series B warrants part of a ClassB Unit are immediately separable and will be issued separately in this offering.

We are also offering the shares of common stock that are issuable from time to time upon exercise of the Series A warrants and Series B warrants being offered by this prospectus. Assuming we sell all $[ ] of Class A Units (and no Class B Units) being offered in this offering and a public offering price of $[ ], the reported closing price of our common stock on , 2015, we would issue in this offering an aggregate of [ ] shares of our common stock, Series A warrants to purchase [ ] shares of our common stock and Series B warrants to purchase [ ] shares of our common stock. Our common stock is quoted on the OTC QB and trades under the symbol "ISCO". The last reported sale price of our common stock on November 24, 2015 on the OTC QB was $3.22 per share. The Series B Preferred and the warrants will not be listed on any national securities exchange.

	Per Share	Per Class A Unit (one share of common stock, a Series A warrant for one share and a Series B warrant for of a share)	Per Class B Unit (one share of Series I Preferred and Series A warrants and Series B warrants)	Total
Offering Price	$	$	$	$
Placement Agent's Fees(1)	$	$	$	$
Proceeds to Us (Before Expenses)	$	$	$	$

(1) In addition, we have agreed to issue to the placement agent warrants to purchase up to a number of shares of common stock equal to 10% of the aggregate number of shares of common stock sold in this offering and a non-accountable expense allowance equal to 1% of gross offering proceeds, but not less than $50,000, in each case excluding sales of securities to our employees or affiliates of the Semechkin family. See the "Plan of Distribution" section of this prospectus for more information on the placement agent arrangements."

We have engaged H.C. Wainwright & Co., LLC ("Wainwright" or the "Placement Agent") to act as our exclusive placement agent in connection with this offering. Wainwright is not purchasing or selling the securities offered by us, and is not required to sell any specific number or dollar amount of securities, but will use its reasonable best efforts to arrange for the sale of the securities offered. We have agreed to pay Wainwright a placement fee equal 9% of the aggregate gross proceeds to us from the sale of the securities in the offering (excluding gross proceeds from sales to our employees or affiliates of the Semechkin family), plus additional compensation as set forth under "Plan of Distribution". Wainwright may engage one or more sub-agents or selected dealers in connection with this offering. We estimate total expenses of this offering, excluding the placement agent fees, will be approximately $. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, placement agent fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. This offering will terminate on , 2015, unless the offering is fully subscribed before that date or we decide to terminate the offering prior to that date. In either event, the offering may be closed without further notice to you. We have not arranged to place the funds from investors in an escrow, trust or similar account.

Delivery of the shares of common stock is expected to be made on or about , 2015, subject to customary closing conditions.

Investing in our securities involves a high degree of risk. Before buying any securities, you should read the discussion of material risks of investing in our common stock under the heading "Risk Factors" beginning on page 6 of this prospectus.

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

Rodman & Renshaw
A unit of H. C. Wainwright & Co.

The date of this prospectus is , 2015.

Table of Contents

INTERNATIONAL STEM CELL CORPORATION
TABLE OF CONTENTS

You should read this prospectus, together with additional information described under "Where You Can Find More Information".

About This Prospectus

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus is accurate only as of the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since such date. Other than as required under the federal securities laws, we undertake no obligation to publicly update or revise such information, whether as a result of new information, future events or any other reason.

The distribution of this prospectus and the offering of our securities in certain jurisdictions may be restricted by law. This prospectus does not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so to any person to whom it is unlawful to make such offer or solicitation. See the "Plan of Distribution" section of this prospectus beginning on page 71. In this prospectus, references to "the Company," "we," "us," and "our," refer to International Stem Cell Corporation.

PROSPECTUS SUMMARY

This summary provides an overview of selected information contained elsewhere in this prospectus and does not contain all of the information you should consider before investing in our securities. You should carefully read this prospectus and the registration statement of which this prospectus is a part in their entirety before investing in our securities, including the information discussed under "Risk Factors" beginning on page 6 and our financial statements and notes thereto that appear elsewhere in this prospectus.

Business Overview

International Stem Cell Corporation (sometimes referred to herein as "ISCO", the "Company", "we", "us", or "our") is a biotechnology company focused on therapeutic and biomedical product development with multiple long-term therapeutic opportunities and two revenue-generating businesses offering potential for increased future revenue.

We currently have no revenue generated from our principal operations in therapeutic pre-clinical and clinical product development. We generated product revenues from our two commercial businesses, which are our skincare business (known as Lifeline Skin Care, or "LSC") and our research products business (known as Lifeline Cell Technology, or "LCT"), of $7,017,000 for the year ended December 31, 2014.

Our products are based on multi-decade experience with human cell culture and a proprietary type of pluripotent stem cells, "human parthenogenetic stem cells" ("hpSCs"). Our hpSCs are comparable to human embryonic stem cells ("hESCs") in that they have the potential to differentiate into many types of more specialized human cells. However, the derivation of hpSCs does not require the use of fertilized eggs or the destruction of viable human embryos and also offers the potential for the creation of immune-matched cells and tissues that are less likely to be rejected following transplantation. ISCO scientists have created the first parthenogenetic, homozygous stem cell line that can be a source of therapeutic cells for hundreds of millions of individuals with minimal immune rejection after transplantation. We have facilities and manufacturing processes that we believe comply with the requirements of current Good Manufacturing Practice (GMP) standards as defined by the US Code of Federal Regulations and promulgated by the Food and Drug Administration ("FDA").

We are developing different cell types from our stem cells that may result in therapeutic products. We focus on applications where cell and tissue therapy is already proven but where there is an insufficient supply of functional cells or tissue. We believe that the most promising potential clinical applications of our technology are:

- Neural stem cells for treatment of Parkinson's disease and potentially other central nervous system disorders, such as traumatic brain injury, stroke and Alzheimer's disease.
- Liver cells ("hepatocytes") that may be used to treat a variety of congenital and acquired liver diseases. Using the same precursor cell that leads to liver cells, it is also possible to create islet cells for potential treatment of diabetes.
- Retinal cells and three-dimensional eye structures including corneal cells and tissue to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

We have completed our IND-enabling preclinical studies on our most advanced program, the development of neural stem cells for the treatment of Parkinson's disease and filed the regulatory submission to the Australian Therapeutics Goods Administration ("TGA") to start a phase 1/2a clinical trial in Australia.

Each of these product candidates will require extensive preclinical and clinical development and may require specific unforeseen licensing rights obtained at substantial cost before regulatory approval may be achieved and the products sold for therapeutic use.

Additionally, we are subject to various other risks; for example, our business is at an early stage of development and we may not develop therapeutic products that can be commercialized; we have a history of operating losses, do not expect to be profitable in the near future and our independent registered public accounting firm has expressed doubt as to our ability to continue as a going concern; and we will need additional capital to conduct our operations and develop our products and our ability to obtain the necessary funding is uncertain. Please see the heading "Risk Factors" beginning on page 5 of this prospectus.

On December 16, 2014 we were named in Deloitte's 2014 Technology Fast 500™ of the fastest growing companies in North America. International Stem Cell Corporation was ranked in 215th place in the overall list, which also included the technology, media, telecommunications and clean tech companies. Of the 47 biotechnology businesses on the list, we placed 21st and we were the only regenerative medicine company represented.

Corporate Information

Our principal executive office is located at 5950 Priestly Drive, Carlsbad, CA 92008, and our telephone number is (760) 940-6383. Our website address is www.internationalstemcell.com. No information found on our website is part of this prospectus. Also, this prospectus may include the names of various government agencies or the trade names of other companies. Unless specifically stated otherwise, the use or display by us of such other parties' names and trade names in this prospectus is not intended to and does not imply a relationship with, or endorsement or sponsorship of us by, any of these other parties.

Summary Risk Factors

An investment in the shares of our common stock involves risks. You should consider carefully the risks discussed below and described more fully along with other risks under "Risk Factors" in this prospectus before investing in our common stock; including:

- Our business is at an early stage of development and we may not develop therapeutic products that can be commercialized.
- We have a history of operating losses, do not expect to be profitable in the near future and our independent registered public accounting firm has expressed doubt as to our ability to continue as a going concern.
- We will need additional capital to conduct our operations and develop our products and our ability to obtain the necessary funding is uncertain.
- We have limited clinical testing and regulatory capabilities, and human clinical trials are subject to extensive regulatory requirements, very expensive, time consuming and difficult to design and implement. Our products may fail to achieve necessary safety and efficacy endpoints during clinical trials, which may limit our ability to generate revenues from therapeutic products.
- Two of our executive officers and directors can significantly influence our direction and policies, and their interests may be adverse to the interests of our other stockholders.
- The rights of holders of our common stock are subordinate to significant rights, preferences and privileges of our existing five series of preferred stock, and to any additional series of preferred stock created in the future.

Summary of the Offering

Class A Units offered by us	We are offering up to $ of Class A Units. Each Class A Unit will consist of one share of our common stock, a Series A warrant to purchase share of our common stock at an exercise price equal to the public offering price of the Class A Units, ("Series A warrant"), and a Series B warrant to purchase of a share of our common stock at an exercise price equal to of the public offering price of the Class A Units, ("Series B warrant"). The Class A Units will not be certificated and the share of common stock and warrants part of such unit are immediately separable and will be issued separately in this offering. This prospectus also relates to the offering of shares of our common stock issuable upon the exercise of the Series A warrants and Series B warrants part of the Class A units. Assuming we sell all $ of Class A Units (and no Class B Units) being offered in this offering and a public offering price of $0. , the reported closing price of our common stock on , 2015, we would issue in this offering an aggregate of shares of our common stock, Series A warrants to purchase shares of our common stock and Series B warrants to purchase shares of our common stock.
Class B Units offered by us	We are also offering to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing Class A Units, to purchase Class B Units. Each Class B Unit will consist of one share of our Class I Convertible Preferred Stock, or the Series I Preferred, with a stated value of $1000 per share and convertible into shares of our common stock at the public offering price of the Class A Units, together with the equivalent number of Series A warrants and Series B warrants as would have been issued to such purchaser if they had purchased Class A Units based on the public offering price. The shares of Series I Preferred do not generally have any voting rights but are convertible into shares of common stock. The Class B Units will not be certificated and the share of Series I Preferred and warrants part of such unit are immediately separable and will be issued separately in this offering. This prospectus also relates to the offering of shares of our common stock issuable upon exercise of the Series A warrants and Series B warrants part of the Class B units.

Series A and Series B Warrants	Each Series A warrant included in the Units will have an exercise price equal to the public offering price of the Class A Units, will be exercisable upon issuance, and will expire months from the date of issuance. Each Series B warrant included in the Units will have an exercise price equal to % of the public offering price of the Class A Units, will be exercisable upon issuance, and will expire years from the date of issuance. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for a listing of the warrants on any national securities exchange.
Common stock to be outstanding after the offering	shares (if the warrants are exercised in full) (1) (2)
Use of proceeds	We expect to use the proceeds received from the offering to fund our research and development activities, including our phase 1/2a clinical study for the Parkinson's disease program and for general working capital needs. See "Use of Proceeds" in this prospectus.
OTC Markets (OTCQB) symbol	ISCO
Risk Factors	Investing in the securities involves substantial risks. See "Risk Factors" beginning on page 5 and the other information in this prospectus for a discussion of the factors you should consider before you decide to invest in shares of our common stock.

(1) The number of shares of common stock shown above to be outstanding after this offering is based on the 2,455,401 shares outstanding as of November 20, 2015 and excludes, as of that date:

- 251,539 shares of common stock issuable upon exercise of outstanding stock options, including those options issued outside our stock option plans, at a weighted average exercise price of $83.65 per share;
- 50,417 shares of common stock reserved for issuance under various outstanding warrant agreements, at an exercise price of $30.00 per share, 1,334 shares of common stock reserved for issuance under other warrants, at an average exercise price of $262.50 per share, and 113,750 shares of common stock reserved for issuance under other warrants, at an exercise price of $1.7933 per share;
- 3,053,910 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series B, Series D, Series G, and Series H Preferred Stock;
- 1,050,916 additional shares of common stock reserved for future issuance under our 2006 and 2010 stock incentive plans.

Unless otherwise specifically stated, information throughout this prospectus does not assume the exercise of outstanding options or warrants to purchase shares of common stock or conversion of outstanding shares of preferred stock.

(2) Excludes the shares of common stock that may be issued under the warrants to be issued in this offering. Assumes only Class A Units are sold in this offering. To the extent we sell any Class B Units, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series I Preferred issued as part of the Class B Units

RISK FACTORS

You should carefully consider the risks described below as well as other information provided to you in this document, including information in the section of this document entitled "Forward Looking Statements". If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected, the value of our common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business

Our business is at an early stage of development and we may not develop therapeutic products that can be commercialized.

Our business is at an early stage of development. We do not have any products in late stage clinical trials. We are still in the early stages of identifying and conducting research on potential therapeutic products. Our potential therapeutic products will require significant research and development and pre-clinical and clinical testing prior to regulatory approval in the United States and other countries. We may not be able to obtain regulatory approvals, enter clinical trials for any of our product candidates, or commercialize any products. Our product candidates may prove to have undesirable and unintended side effects or other characteristics adversely affecting their safety, efficacy or cost effectiveness that could prevent or limit their use. Any product using any of our technology may fail to provide the intended therapeutic benefits, or achieve therapeutic benefits equal to or better than the standard of treatment at the time of testing or production.

We have a history of operating losses, do not expect to be profitable in the near future and our independent registered public accounting firm has expressed doubt as to our ability to continue as a going concern.

We have not generated any profits since our entry into the biotechnology business and have incurred significant operating losses. We expect to incur additional operating losses for the foreseeable future and, as we increase our research and development activities, we expect our operating losses to increase significantly. Our commercial businesses have not generated revenues in amounts to support our research and development efforts, and we may not achieve that level of revenues in the foreseeable future.

We have expended substantial funds to develop our technologies, products and product candidates. Based on our financial condition, recurring losses and projected spending, which raise substantial doubts about our ability to continue as a going concern, our independent registered public accounting firm included an explanatory paragraph in its report on our consolidated financial statements as of and for the year ended December 31, 2014 regarding this uncertainty. The inclusion of the going concern statement by our auditors may adversely affect our stock price and our ability to raise needed capital or enter into advantageous contractual relationships with third parties. If we were unable to continue as a going concern, the values we receive for our assets on liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

We will need additional capital to conduct our operations and develop our products and our ability to obtain the necessary funding is uncertain.

During the nine months ended September 30, 2015, we used a significant amount of cash to finance the continued development and testing of our product candidates, and we need to obtain significant additional capital resources in order to develop products going forward. Our average burn rate for the nine months ended September 30, 2015 was approximately $383,000 per month excluding capital expenditures and patent costs averaging $59,000 per month. We may not be successful in maintaining our normal operating cash flow and the timing of our capital expenditures may not result in cash flows sufficient to sustain our operations through the next twelve months. If financing is not sufficient and additional financing is not available or available only on terms that are detrimental to our long-term survival, it could have a major adverse effect on our ability to

continue to function. The timing and degree of any future capital requirements will depend on many factors, including:

- the accuracy of the assumptions underlying our estimates for capital needs in 2015 and beyond;
- scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs and our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our progress with pre-clinical development and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the number and type of product candidates that we pursue.

Additional financing through strategic collaborations, public or private equity or debt financings or other financing sources may not be available on acceptable terms, or at all. Additional equity financing could result in significant dilution to our stockholders, and any debt financings will likely involve covenants restricting our business activities. Additional financing may not be available on acceptable terms, or at all. Further, if we obtain additional funds through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise seek to develop and commercialize on our own. If sufficient capital is not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or product development initiatives, any of which could have a material adverse effect on our financial condition or business prospects.

Additionally, currently the U.S. government, through National Institute of Health appropriations restrictions, prevents federal funding to be used to create new embryonic and parthenogenetic stem cells, so access to grants from the NIH are limited.

We have limited clinical testing and regulatory capabilities, and human clinical trials are subject to extensive regulatory requirements, very expensive, time-consuming and difficult to design and implement. Our products may fail to achieve necessary safety and efficacy endpoints during clinical trials, which may limit our ability to generate revenues from therapeutic products.

Due to the relatively early stage of our therapeutic products and stem cell therapy-based systems, we have not yet invested significantly in clinical testing and regulatory capabilities, including for human clinical trials. We cannot assure you that we will be able to invest or develop resources for these capabilities successfully or as expediently as necessary. In particular, human clinical trials can be very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is time consuming. We estimate that clinical trials of our product candidates will take at least several years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be affected by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- inability to demonstrate effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, we or the FDA may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in our IND submissions or the conduct of these trials.

Patents held by other persons may result in infringement claims against us that are costly to defend and which may limit our ability to use the disputed technologies and prevent us from pursuing research and development or commercialization of potential products.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have been issued patents relating to cell therapy, stem cells, and other technologies potentially relevant to or required by our expected products. We cannot predict which, if any, of such applications will issue as patents or the claims that might be allowed. We are aware that a number of companies have filed applications relating to stem cells. We are also aware of a number of patent applications and patents claiming use of stem cells and other modified cells to treat disease, disorder or injury.

If third party patents or patent applications contain claims infringed by either our licensed technology or other technology required to make and use our potential products and such claims are ultimately determined to be valid, we might not be able to obtain licenses to these patents at a reasonable cost, if at all, or be able to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, we may not be able to develop some products commercially. We may be required to defend ourselves in court against allegations of infringement of third party patents. Patent litigation is very expensive and could consume substantial resources and create significant uncertainties. An adverse outcome in such a suit could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties, or require us to cease using such technology.

Our competition includes fully integrated biotechnology, pharmaceutical and cosmetic companies that have significant advantages over us.

The market for therapeutic stem cell products is highly competitive. We expect that our most significant competitors will be fully integrated and more established pharmaceutical, biotechnology and cosmetic companies. These companies are developing stem cell-based products and they have significantly greater capital resources and research and development, manufacturing, testing, regulatory compliance, and marketing capabilities. Many of these potential competitors are further along in the process of product development and also operate large, company-funded research and development programs. As a result, our competitors may develop more competitive or affordable products, or achieve earlier patent protection or product commercialization than we are able to achieve. Competitive products may render any products or product candidates that we develop obsolete.

If competitors develop and market products that are more effective, safer, or less expensive than our product candidates or offer other advantages, our commercial prospects will be limited.

Our cell therapy development programs face, and will continue to face, intense competition from pharmaceutical, biopharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies engaged in drug discovery activities or funding, both in the United States and abroad. Some of these competitors are pursuing the development of drugs and other therapies that target the same diseases and conditions that we are targeting with our product candidates.

As a general matter, we also face competition from many companies that are researching and developing cell therapies. Many of these companies have financial and other resources substantially greater than ours. In addition, many of these competitors have significantly greater experience in testing pharmaceutical and other therapeutic products, obtaining FDA and other regulatory approvals, and marketing and selling. If we ultimately obtain regulatory approval for any of our product candidates, we also will be competing with respect to manufacturing efficiency and marketing capabilities, areas in which we have limited or no commercial-scale

experience. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated by our competitors. Competition may increase further as a result of advances made in the commercial applicability of our technologies and greater availability of capital for investment in these fields.

If we fail to meet our obligations under our license agreements, we may lose our rights to key technologies on which our business depends.

Our business depends in part on licenses from third parties. These third party license agreements impose obligations on us, such as payment obligations and obligations to diligently pursue development of commercial products under the licensed patents. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation, our ability to carry out the development and commercialization of potential products could be significantly and negatively affected. If our license rights were restricted or ultimately lost, our ability to continue our business based on the affected technology platform could be severely affected adversely.

Significant delays or reductions in U.S. Government funding may negatively affect our results of operations.

We estimate that governmental funding, either directly or indirectly (through sponsorship of academic research), comprises approximately 40% of the market for basic and applied research in biological sciences, which is the target market for our LCT research products. The U.S. Government is considering (and has implemented in the recent past) significant changes in government spending and other governmental programs, which in the recent past involved several automatic spending cuts being implemented. There are many variables in how these laws could be implemented in the future that make it difficult to determine specific impacts on our customers, and we are unable to predict the impact that future automatic spending cuts would have on funding our customers receive and resulting sales of our LCT products. Additionally, U.S. Governmental programs are subject to annual congressional budget authorization and appropriation processes. However, whether through the automatic cuts or other decisions, long-term funding for certain programs in which our research product customers participate may be reduced, delayed or cancelled. In the event that governmental funding for any of our research product customers is reduced or delayed, our sales to those customers would likely suffer, which could have a material adverse effect on our results of operations. Further, currently the U.S. government, through National Institute of Health appropriations restrictions, prevents federal funding to be used to create new embryonic and parthenogenetic stem cells, so access to grants from the NIH are limited, which may adversely affect our partnering opportunities and internal therapeutic product development initiatives.

Restrictive and extensive government regulation could slow or hinder our production of a cellular product.

The research and development of stem cell therapies is subject to and restricted by extensive regulation by governmental authorities in the United States and other countries. The process of obtaining FDA and other necessary regulatory approvals is lengthy, expensive and uncertain. We may fail to obtain the necessary approvals to continue our research and development, which would hinder our ability to manufacture or market any future product.

The development and commercialization of our product candidates is subject to extensive regulation by the FDA and other regulatory agencies in the United States and abroad, and the failure to receive regulatory approvals for our other product candidates would likely have a material and adverse effect on our business and prospects.

The process of obtaining FDA and other regulatory approvals is expensive, generally takes many years and is subject to numerous risks and uncertainties, particularly with complex and/or novel product candidates such as our product candidates. Changes in regulatory approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product

application, may cause delays in the approval or rejection of an application or may make it easier for our competitors to gain regulatory approval to enter the marketplace. Ultimately, the FDA and other regulatory agencies have substantial discretion in the approval process and may refuse to accept any application or may decide that our product candidate data are insufficient for approval without the submission of additional pre-clinical, clinical or other studies. In addition, varying agency interpretations of the data obtained from pre-clinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Any regulatory approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Any of the following factors, among others, could cause regulatory approval for our product candidates to be delayed, limited or denied:

- the product candidates require significant clinical testing to demonstrate safety and effectiveness before applications for marketing approval can be filed with the FDA and other regulatory authorities;
- data obtained from pre-clinical and nonclinical animal testing and clinical trials can be interpreted in different ways, and regulatory authorities may not agree with our respective interpretations or may require us to conduct additional testing;
- negative or inconclusive results or the occurrence of serious or unexpected adverse events during a clinical trial could cause us to delay or terminate development efforts for a product candidate; and/or
- FDA and other regulatory authorities may require expansion of the size and scope of the clinical trials.

Any difficulties or failures that we encounter in securing regulatory approval for our product candidates would likely have a substantial adverse impact on our ability to generate product sales, and could make any search for a collaborative partner more difficult.

Research in the field of embryonic stem cells is currently subject to strict government regulations, and our operations could be restricted or outlawed by any legislative or administrative efforts impacting the use of nuclear transfer technology or human embryonic material.

Significant portions of our business are focused on human cell therapy, which includes the production of human differentiated cells from stem cells and involves human oocytes. Although our focus is on parthenogenetic stem cells derived from unfertilized oocytes, certain aspects of that work may involve the use of embryonic stem cells. Research utilizing embryonic stem cells is controversial, and currently subject to intense scrutiny, particularly in the area of the use of human embryonic material.

Federal law is not as restrictive regarding the use of federal funds for human embryonic cell research, commonly referred to as hES cell research as it once was. However, federal law does prohibit federal funding for creation of parthenogenetic stem cells. Our operations may also be restricted by future legislative or administrative efforts by politicians or groups opposed to the development of hES cell technology, parthenogenetic cell technology or nuclear transfer technology. Further, future legislative or administrative restrictions could, directly or indirectly, delay, limit or prevent the use of hES technology, parthenogenetic technology, or nuclear transfer technology, the use of human embryonic material, or the sale, manufacture or use of products or services derived from nuclear transfer technology or hES or parthenogenetic technology.

We may be unsuccessful in our efforts to comply with applicable federal, state and international laws and regulations, which could result in loss of licensure, certification or accreditation or other government enforcement actions or impact our ability to secure regulatory approval of our product candidates.

Although we seek to conduct our business in compliance with applicable governmental healthcare laws and regulations, these laws and regulations are exceedingly complex and often subject to varying interpretations. The cell therapy industry is the topic of significant government interest, and thus the laws and regulations applicable to our business are subject to frequent change and/or reinterpretation. As such, there can be no assurance that we

will be able, or will have the resources, to maintain compliance with all such healthcare laws and regulations. Failure to comply with such healthcare laws and regulations, as well as the costs associated with such compliance or with enforcement of such healthcare laws and regulations, may have a material adverse effect on our operations or may require restructuring of our operations or impair our ability to operate profitably.

Our manufacture of certain cellular therapy products triggers additional FDA requirements applicable to hESCs which are regulated as a drug, biological product, or medical device. FDA's GMP regulations govern the manufacture, processing, packaging and holding of cell therapy products regulated as drugs. FDA's Quality System Regulation, or QSR, similarly governs the manufacture, processing, packaging and holding of cell therapy products regulated as medical devices. We must comply with GMP or QSR requirements including quality control, quality assurance and the maintenance of records and documentation for certain products. We may be unable to comply with these GMP or QSR requirements and with other FDA, state and foreign regulatory requirements. These requirements may change over time and we or third-party manufacturers may be unable to comply with the revised requirements.

We will continue to be subject to extensive FDA regulation following any product approvals, and if we fail to comply with these regulations, we may suffer a significant setback in our business.

Even if we are successful in obtaining regulatory approval of our product candidates, we will continue to be subject to the requirements of and review by, the FDA and comparable regulatory authorities in the areas of manufacturing processes, post-approval clinical data, adverse event reporting, labeling, advertising and promotional activities, among other things. In addition, any marketing approval we receive may be limited in terms of the approved product indication or require costly post-marketing testing and surveillance. Discovery after approval of previously unknown problems with a product, manufacturer or manufacturing process, or a failure to comply with regulatory requirements, may result in actions such as:

- warning letters or other actions requiring changes in product manufacturing processes or restrictions on product marketing or distribution;
- product recalls or seizures or the temporary or permanent withdrawal of a product from the market; and
- fines, restitution or disgorgement of profits or revenue, the imposition of civil penalties or criminal prosecution.

The occurrence of any of these actions would likely cause a material adverse effect on our business, financial condition and results of operations.

Health care companies have been the subjects of federal and state investigations, and we could become subject to investigations in the future.

Both federal and state government agencies have heightened civil and criminal enforcement efforts. There are numerous ongoing investigations of health care companies, as well as their executives and managers. In addition, amendments to the Federal False Claims Act, have made it easier for private parties to bring "*qui tam*" (whistleblower) lawsuits against companies under which the whistleblower may be entitled to receive a percentage of any money paid to the government. The Federal False Claims Act provides, in part, that an action can be brought against any person or entity that has knowingly presented, or caused to be presented, a false or fraudulent request for payment from the federal government, or who has made a false statement or used a false record to get a claim approved. The government has taken the position that claims presented in violation of the federal anti-kickback law, Stark Law or other healthcare-related laws, including laws enforced by the FDA, may be considered a violation of the Federal False Claims Act. Penalties include substantial fines for each false claim, plus three times the amount of damages that the federal government sustained because of the act of that person or entity and/or exclusion from the Medicare program. In addition, a majority of states have adopted similar state whistleblower and false claims provision. Any future investigations of our business or executives could cause us to incur substantial costs, and result in significant liabilities or penalties, as well as damage to our reputation.

Restrictions on the use of human stem cells, and the ethical, legal and social implications of that research, could prevent us from developing or gaining acceptance for commercially viable products in these areas.

Although our stem cells are derived from unfertilized human eggs through a process called "parthenogenesis" that can produce cells suitable for therapy, but are believed to be incapable of producing a human being, such cells are nevertheless often incorrectly referred to as "embryonic" stem cells. Because the use of human embryonic stem cells gives rise to ethical, legal and social issues regarding the appropriate use of these cells, our research related to human parthenogenetic stem cells could become the subject of adverse commentary or publicity and some political and religious groups may still raise opposition to our technology and practices. In addition, many research institutions, including some of our scientific collaborators, have adopted policies regarding the ethical use of human embryonic tissue, which, if applied to our procedures, may have the effect of limiting the scope of research conducted using our stem cells, thereby impairing our ability to conduct research in this field. In some states, use of embryos as a source of stem cells is prohibited.

To the extent we utilize governmental grants in the future, the governmental entities involved may retain certain rights in technology that we develop using such grant money and we may lose the revenues from such technology if we do not commercialize and utilize the technology pursuant to established government guidelines.

Certain of our licensors' research have been or are being funded in part by government grants. Our research may also be government-funded in the future. In connection with certain grants, the governmental entity involved retains various rights in the technology developed with the grant. These rights could restrict our ability to fully capitalize upon the value of this research by reducing total revenues that might otherwise be available since such governmental rights may give the government the right to practice the invention without payment of royalties if we do not comply with applicable requirements.

We rely on parthenogenesis, cell differentiation and other stem cell technologies that we may not be able to successfully develop, which may prevent us from generating revenues, operating profitably or providing investors any return on their investment.

We have concentrated our research on our parthenogenesis, cell differentiation and stem cell technologies, and our ability to operate profitably will depend on being able to successfully implement or develop these technologies for human applications. These are emerging technologies with, as yet, limited human applications. We cannot guarantee that we will be able to successfully implement or develop our nuclear transfer, parthenogenesis, cell differentiation and other stem cell technologies or that these technologies will result in products or services with any significant commercial utility. We anticipate that the commercial sale of such products or services, and royalty/licensing fees related to our technology, would be an additional source of revenues.

The outcome of pre-clinical, clinical and product testing of our products is uncertain, and if we are unable to satisfactorily complete such testing, or if such testing yields unsatisfactory results, we may be unable to commercially produce our proposed products.

Before obtaining regulatory approvals for the commercial sale of any potential human products, our products will be subjected to extensive pre-clinical and clinical testing to demonstrate their safety and efficacy in humans. The clinical trials of our prospective products, or those of our licensees or collaborators, may not demonstrate the safety and efficacy of such products at all, or to the extent necessary to obtain appropriate regulatory approvals. Similarly, the testing of such prospective products may not be completed in a timely manner, if at all, or only after significant increases in costs, program delays or both, all of which could harm our ability to generate revenues. In addition, our prospective products may not prove to be more effective for treating disease or injury than current therapies. Accordingly, we may have to delay or abandon efforts to research, develop or obtain regulatory approval to market our prospective products. The failure to adequately demonstrate the safety and efficacy of a therapeutic product under development could delay or prevent regulatory approval of the product and could harm our ability to generate revenues, operate profitably or produce any return on an investment in us.

Even if we are successful in developing a therapeutic application using our cell technologies, it is unclear whether cell therapy can serve as the foundation for a commercially viable and profitable business.

Stem cell technology is rapidly developing and could undergo significant change in the future. Such rapid technological development could result in our technologies becoming obsolete. While our product candidates appear promising, they may fail to be successfully commercialized for numerous reasons, including, but not limited to, competing technologies for the same indications. There can be no assurance that we will be able to develop a commercially successful therapeutic application for our stem cell technologies.

Moreover, advances in other treatment methods or in disease prevention techniques could significantly reduce or entirely eliminate the need for our cell therapy services, planned products and therapeutic efforts. There is no assurance that cell therapies will achieve the degree of success envisioned by us in the treatment of disease. Additionally, technological or medical developments may materially alter the commercial viability of our technology or services, and require us to incur significant costs to replace or modify equipment in which we have a substantial investment. We are focused on cell therapy, and if this field is substantially unsuccessful, this could jeopardize our success or future results. The occurrence of any of these factors may have a material adverse effect on our business, operating results and financial condition.

If we are unable to keep up with rapid technological changes in our field or compete effectively, we will be unable to operate profitably.

We are engaged in activities in the biotechnology field, which is characterized by extensive research efforts and rapid technological progress. If we fail to anticipate or respond adequately to technological developments, our ability to operate profitably could suffer. Research and discoveries by other biotechnology, agricultural, pharmaceutical or other companies may render our technologies or potential products or services uneconomical or result in products superior to those we develop. Similarly, any technologies, products or services we develop may not be preferred to any existing or newly developed technologies, products or services.

We may not be able to protect our proprietary technology, which could harm our ability to operate profitably.

The biotechnology, cosmeceutical, and pharmaceutical industries place considerable importance on obtaining patent and trade secret protection for new technologies, products and processes. Our success will depend, to a substantial degree, on our ability to obtain and enforce patent protection for our products, preserve any trade secrets and operate without infringing the proprietary rights of others. We cannot assure you that:

- we will succeed in obtaining any patents, obtain them in a timely manner, or that the breadth or degree of protection that any such patents will protect our interests;
- the use of our technology will not infringe on the proprietary rights of others;
- patent applications relating to our potential products or technologies will result in the issuance of any patents or that, if issued, such patents will afford adequate protection to us or will not be challenged, invalidated or infringed; or
- patents will not be issued to other parties, which may be infringed by our potential products or technologies.

We are aware of certain patents that have been granted to others and certain patent applications that have been filed by others with respect to nuclear transfer and other stem cell technologies. The fields in which we operate have been characterized by significant efforts by competitors to establish dominant or blocking patent rights to gain a competitive advantage, and by considerable differences of opinion as to the value and legal legitimacy of competitors' purported patent rights and the technologies they actually utilize in their businesses.

Considerable research in the areas of stem cells, cell therapeutics and regenerative medicine is being performed in countries outside of the United States, and a number of our competitors are located in those countries. The laws protecting intellectual property in some of those countries may not provide adequate protection to prevent our competitors from misappropriating our intellectual property.

Our business is highly dependent upon maintaining licenses with respect to key technology.

Although our primary focus relates to intellectual property we have developed internally, some of the patents we utilize are licensed to us by Ocata, which has licensed some of these from other parties, including the University of Massachusetts. These licenses are subject to termination under certain circumstances (including, for example, our failure to make minimum royalty payments). The loss of any of such licenses, or the conversion of such licenses to non-exclusive licenses, could harm our operations and/or enhance the prospects of our competitors.

Although our licenses with Ocata allow us to cure any defaults under the underlying licenses to them and to take over the patents and patents pending in the event of default by Ocata, the cost of such remedies could be significant and we might be unable to adequately maintain these patent positions. If so, such inability could have a material adverse effect on our business. Some of these licenses also contain restrictions (e.g., limitations on our ability to grant sublicenses) that could materially interfere with our ability to generate revenue through the licensing or sale to third parties of important and valuable technologies that we have, for strategic reasons, elected not to pursue directly. In the future we may require further licenses to complete and/or commercialize our proposed products. We may not be able to acquire any such licenses on a commercially-viable basis.

Cybersecurity breaches could expose us to liability, damage our reputation, compromise our confidential information or otherwise adversely affect our business.

We maintain sensitive company data on our computer networks, including our intellectual property and proprietary business information, as well as certain personal information regarding customers who purchase our skin care products online. We face a number of threats to our networks from unauthorized access, security breaches and other system disruptions. Despite our security measures, our infrastructure may be vulnerable to attacks by hackers or other disruptive problems. Any such security breach may compromise information stored on our networks and may result in significant data losses or theft of our intellectual property, proprietary business information or our customers' personally identifiable information. A cybersecurity breach could hurt our reputation by adversely affecting the perception of customers and potential customers of the security of their orders and personal information. In addition, a cybersecurity attack could result in other negative consequences, including disruption of our internal operations, increased cyber security protection costs, lost revenues or litigation.

Certain of our technology may not be subject to protection through patents, which leaves us vulnerable to theft of our technology.

Certain parts of our know-how and technology are not patentable or are trade secrets. To protect our proprietary position in such know-how and technology, we intend to require all employees, consultants, advisors and collaborators to enter into confidentiality and invention ownership agreements with us. These agreements may not provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure. Further, in the absence of patent protection, competitors who independently develop substantially equivalent technology may harm our business.

We depend on our collaborators to help us develop and test our proposed products, and our ability to develop and commercialize products may be impaired or delayed if collaborations are unsuccessful.

Our strategy for the development, clinical testing and commercialization of our proposed products requires that we enter into collaborations with corporate partners, licensors, licensees and others. We are dependent upon the subsequent success of these other parties in performing their respective responsibilities and the continued

cooperation of our partners. Our collaborators may not cooperate with us or perform their obligations under our agreements with them. We cannot control the amount and timing of our collaborators' resources that will be devoted to our research and development activities related to our collaborative agreements with them. Our collaborators may choose to pursue existing or alternative technologies in preference to those being developed in collaboration with us.

Under agreements with collaborators, we may rely significantly on such collaborators to, among other things:

- design and conduct advanced clinical trials in the event that we reach clinical trials;
- fund research and development activities with us;
- pay us fees upon the achievement of milestones; and
- market with us any commercial products that result from our collaborations.

The development and commercialization of potential products will be delayed if collaborators fail to conduct these activities in a timely manner, or at all. In addition, our collaborators could terminate their agreements with us and we may not receive any development or milestone payments. If we do not achieve milestones set forth in the agreements, or if our collaborators breach or terminate their collaborative agreements with us, our business may be materially harmed.

Contractual arrangements with licensors or collaborators may require us to pay royalties or make other payments related to the development of a product candidate, which would adversely affect the level of our future revenues and profits.

Even if we obtain all applicable regulatory approvals and successfully commercialize one or more of our cell therapy candidates, contractual arrangements between us and a licensor, collaborator or other third party in connection with the respective product may require that we make royalty or other payments to the respective third party, and as a result we would not receive all of the revenue derived from commercial sales of such product.

Our reliance on the activities of our non-employee consultants, research institutions, and scientific contractors, whose activities are not wholly within our control, may lead to delays in development of our proposed products.

We rely extensively upon and have relationships with scientific consultants at academic and other institutions, some of whom conduct research at our request, and other consultants with expertise in clinical development strategy or other matters. These consultants are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. We have limited control over the activities of these consultants and, except as otherwise required by our collaboration and consulting agreements to the extent they exist, can expect only limited amounts of their time to be dedicated to our activities. These research facilities may have commitments to other commercial and non-commercial entities. We have limited control over the operations of these laboratories and can expect only limited amounts of time to be dedicated to our research goals.

We may be subject to litigation that will be costly to defend or pursue and uncertain in its outcome.

Our business may bring us into conflict with our licensees, licensors or others with whom we have contractual or other business relationships, or with our competitors or others whose interests differ from ours. If we are unable to resolve those conflicts on terms that are satisfactory to all parties, we may become involved in litigation brought by or against us. That litigation is likely to be expensive and may require a significant amount of management's time and attention, at the expense of other aspects of our business. The outcome of litigation is

always uncertain, and in some cases could include judgments against us that require us to pay damages, enjoin us from certain activities, or otherwise affect our legal or contractual rights, which could have a significant adverse effect on our business.

We may not be able to obtain third party patient reimbursement or favorable product pricing, which would reduce our ability to operate profitably.

Our ability to successfully commercialize certain of our proposed products in the human therapeutic field may depend to a significant degree on patient reimbursement of the costs of such products and related treatments at acceptable levels from government authorities, private health insurers and other organizations, such as health maintenance organizations. Reimbursement in the United States or foreign countries may not be available for any products we may develop, and, if available, may be decreased in the future. Also, reimbursement amounts may reduce the demand for, or the price of, our products with a consequent harm to our business. We cannot predict what additional regulation or legislation relating to the health care industry or third party coverage and reimbursement may be enacted in the future or what effect such regulation or legislation may have on our business. If additional regulations are overly onerous or expensive, or if health care related legislation makes our business more expensive or burdensome than originally anticipated, we may be forced to significantly downsize our business plans or completely abandon our business model.

Our products may be expensive to manufacture, and they may not be profitable if we are unable to control the costs to manufacture them.

Our products may be significantly more expensive to manufacture than other therapeutic products currently on the market today. We hope to substantially reduce manufacturing costs through process improvements, development of new methods, increases in manufacturing scale and outsourcing to experienced manufacturers. If we are not able to make these, or other improvements, and depending on the pricing of the product, our profit margins may be significantly less than that of other therapeutic products on the market today. In addition, we may not be able to charge a high enough price for any cell therapy product we develop, even if they are safe and effective, to make a profit. If we are unable to realize significant profits from our potential product candidates, our business would be materially harmed.

We presently lack sufficient manufacturing capabilities to produce our therapeutic product candidates at commercial scale quantities and do not have an alternate manufacturing supply, which could negatively impact our ability to meet any future demand for the product.

We expect that we would need to significantly expand our manufacturing capabilities to meet potential demand for our therapeutic product candidates, if approved. Such expansion would require additional regulatory approvals. Even if we increase our manufacturing capabilities, it is possible that we may still lack sufficient capacity to meet demand.

We do not presently have any alternate supply for our products. If our facilities where our products are currently being manufactured or equipment were significantly damaged or destroyed, or if there were other disruptions, delays or difficulties affecting manufacturing capacity, including if such facilities are deemed not in compliance with current Good Manufacturing Practice (“GMP”) requirements, future clinical studies and commercial production for our products would likely be significantly disrupted and delayed. It would be both time consuming and expensive to replace this capacity with third parties, particularly since any new facility would need to comply with the regulatory requirements.

Ultimately, if we are unable to supply our products to meet commercial demand, whether because of processing constraints or other disruptions, delays or difficulties that we experience, our production costs could dramatically increase and sales of the product and its long-term commercial prospects could be significantly damaged.

To be successful, our proposed products must be accepted by the health care community, which can be very slow to adopt or unreceptive to new technologies and products.

Our proposed products and those developed by our collaborative partners, if approved for marketing, may not achieve market acceptance since hospitals, physicians, patients or the medical community in general may decide not to accept and utilize these products. The products that we are attempting to develop represent substantial departures from established treatment methods and will compete with a number of more conventional therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of any of our developed products will depend on a number of factors, including:

- our establishment and demonstration to the medical community of the clinical efficacy and safety of our proposed products;
- our ability to create products that are superior to alternatives currently on the market;
- our ability to establish in the medical community the potential advantage of our treatments over alternative treatment methods; and
- reimbursement policies of government and third party payers.

If the healthcare community does not accept our products for any of the foregoing reasons, or for any other reason, our business would be materially harmed.

Our business is based on novel technologies that are inherently expensive, risky and may not be understood by or accepted in the marketplace, which could adversely affect our future value.

The clinical development, commercialization and marketing of cell and tissue-based therapies are at an early-stage, substantially research-oriented, and financially speculative. To date, very few companies have been successful in their efforts to develop and commercialize a stem cell product. In general, stem cell products may be susceptible to various risks, including undesirable and unintended side effects, unintended immune system responses, inadequate therapeutic efficacy, or other characteristics that may prevent or limit their approval or commercial use. Furthermore, the number of people who may use cell or tissue-based therapies is difficult to forecast with accuracy. Our future success is dependent on the establishment of a significant market for cell- and tissue-based therapies and our ability to capture a share of this market with our product candidates.

Our development efforts with our therapeutic product candidates are susceptible to the same risks of failure inherent in the development and commercialization of therapeutic products based on new technologies. The novel nature of cellular therapeutics creates significant challenges in the areas of product development and optimization, manufacturing, government regulation, third-party reimbursement and market acceptance. For example, the United States FDA has relatively limited experience regulating therapies based on cells, and there are few approved treatments utilizing cell therapy.

During the nine months ended September 30, 2015, we derived approximately 22% of our revenues from one customer.

During the nine months ended September 30, 2015, one customer accounted for 22% of our consolidated revenues. To the extent that this significant customer reduces or delays its purchases from us or terminates its relationship with us, our revenues would decline significantly and our financial condition and results of operations would suffer substantially.

We depend on key personnel for our continued operations and future success, and a loss of certain key personnel could significantly hinder our ability to move forward with our business plan.

Because of the specialized nature of our business, we are highly dependent on our ability to identify, hire, train and retain highly qualified scientific and technical personnel for the research and development activities we conduct or sponsor. The loss of one or more key executive officers, or scientific officers, would be significantly

detrimental to us. In addition, recruiting and retaining qualified scientific personnel to perform research and development work is critical to our success. Our anticipated growth and expansion into areas and activities requiring additional expertise, such as clinical testing, regulatory compliance, manufacturing and marketing, will require the addition of new management personnel and the development of additional expertise by existing management personnel. There is intense competition for qualified personnel in the areas of our present and planned activities. Accordingly, we may not be able to continue to attract and retain the qualified personnel, which would adversely affect the development of our business.

We may not have sufficient product liability insurance, which may leave us vulnerable to future claims we will be unable to satisfy.

The testing, manufacturing, marketing and sale of human therapeutic products entail an inherent risk of product liability claims. We currently have a limited amount of product liability insurance, which may not be adequate to meet potential product liability claims. In the event we are forced to expend significant funds on defending product liability actions, and in the event those funds come from operating capital, we will be required to reduce our business activities, which could lead to significant losses. Adequate insurance coverage may not be available in the future on acceptable terms, if at all. If available, we may not be able to maintain any such insurance at sufficient levels of coverage and any such insurance may not provide adequate protection against potential liabilities. Whether or not a product liability insurance policy is obtained or maintained in the future, any product liability claim could harm our business or financial condition.

Risks Related to the Securities Markets and Our Capital Structure

Stock prices for biotechnology companies have historically tended to be very volatile.

Stock prices and trading volumes for many biotechnology companies fluctuate widely for a number of reasons, including but not limited to the following factors, some of which may be unrelated to their businesses or results of operations:

- clinical trial results;
- the amount of cash resources and such company's ability to obtain additional funding;
- announcements of research activities, business developments, technological innovations or new products by competitors;
- entering into or terminating strategic relationships;
- changes in government regulation;
- disputes concerning patents or proprietary rights;
- changes in our revenues or expense levels;
- public concern regarding the safety, efficacy or other aspects of the products or methodologies we are developing;
- reports by securities analysts;
- activities of various interest groups or organizations;
- media coverage; and
- status of the investment markets.

This market volatility, as well as general domestic or international economic, market and political conditions, could materially and adversely affect the market price of our common stock.

Two of our executive officers and directors can significantly influence our direction and policies, and their interests may be adverse to the interests of our other stockholders.

As of September 30, 2015, Dr. Andrey Semechkin, Chief Executive Officer and Co-Chairman of the Board of Directors, and Dr. Russell Kern, Chief Scientific Officer and a director, beneficially own approximately 68% of our outstanding shares of common stock, including shares issuable upon conversion of the outstanding shares of our Series D, Series G and Series H Preferred Stock and shares issuable upon exercise of options and warrants that they hold. As a result of their holdings and the rights, preferences and privileges of those series of preferred stock, Dr. Andrey Semechkin and Dr. Russell Kern may appoint and remove two of our five directors, and propose candidates for nomination of up to two additional directors, and therefore will be able to significantly influence the election of our Board of Directors. They may also prevent corporate transactions (such as a merger, consolidation, a sale of all or substantially all of our assets or a financing transaction) that may be favorable from the standpoint of our other stockholders or they may cause a transaction that our other stockholders may view as unfavorable.

The application of the "penny stock" rules to our common stock could limit the trading and liquidity of our common stock, adversely affect the market price of our common stock and increase stockholder transaction costs to sell those shares.

As long as the trading price of our common stock is below $5.00 per share, the open market trading of our common stock will be subject to the "penny stock" rules, unless we otherwise qualify for an exemption from the "penny stock" definition. The "penny stock" rules impose additional sales practice requirements on certain broker-dealers who sell securities to persons other than established customers and accredited investors (generally those with assets in excess of $1,000,000 or annual income exceeding $200,000 or $300,000 together with their spouse). These regulations, if they apply, require the delivery, prior to any transaction involving a penny stock, of a disclosure schedule explaining the penny stock market and the associated risks. Under these regulations, certain brokers who recommend such securities to persons other than established customers or certain accredited investors must make a special written suitability determination regarding such a purchaser and receive such purchaser's written agreement to a transaction prior to sale. These regulations may have the effect of limiting the trading activity of our common stock, reducing the liquidity of an investment in our common stock and increasing the transaction costs for sales and purchases of our common stock as compared to other securities.

The rights of holders of our common stock are subordinate to significant rights, preferences and privileges of our existing five series of preferred stock, and to any additional series of preferred stock created in the future.

Under the authority granted by our Certificate of Incorporation, our Board of Directors has established five separate series of outstanding preferred stock, including Series B, Series D, Series G, Series H-1 and Series H-2 Preferred Stock, which have various rights and preferences senior to the shares of common stock. Shares of our existing preferred stock are also entitled to enhanced voting rights and liquidation preferences. As a result of the various voting rights, the holders of our existing preferred stock may be able to block the proposed approval of various corporate actions, which could prevent us from achieving strategic or other goals dependent on such actions. As a result of the liquidation preferences, in the event that we voluntarily or involuntary liquidate, dissolve or windup our affairs (including as a result of a merger), the holders of our preferred stock would be entitled to receive stated amounts per share, including any accrued and unpaid dividends, before any distribution of assets or merger consideration is made to holders of our common stock. Additionally, these shares of preferred stock may be converted, at the option of the holders, into common stock at rates that may be adjusted, for the benefit of holders of preferred stock, if we sell equity securities below the then existing conversion prices. Any such adjustments would compound the potential dilution suffered by holders of common stock if we issue additional securities at prices below the current conversion prices (ranging from $1.7933 to $23.8103 per share as of September 30, 2015). Additionally, subject to the consent of the holders of our existing preferred stock, our Board of Directors has the power to issue additional series of preferred stock and to designate, as it deems appropriate (subject to the rights of the holders of the current series of preferred stock), the special dividend,

liquidation or voting rights of the shares of those additional series. The creation and designation of any new series of preferred stock could adversely affect the voting power, dividend, liquidation and other rights of holders of our common stock and, possibly, any other class or series of stock that is then in existence.

The market price for our common stock has been and may continue to be particularly volatile given our status as a relatively unknown company with a limited operating history and lack of profits, which could lead to wide fluctuations in our share price. The price at which stockholders purchase shares of our common stock may not be indicative of the price of our common stock that will prevail in the trading market.

The market for our common stock may be characterized by significant price volatility when compared to seasoned issuers, and we expect that our stock price could continue to be more volatile than a seasoned issuer for the indefinite future. The potential volatility in our share price is attributable to a number of factors. First, there has been limited trading in our common stock. As a consequence of this lack of liquidity, any future trading of shares by our stockholders may disproportionately influence the price of those shares in either direction. Second, we are a speculative or "risky" investment due to our limited operating history and lack of profits to date, and uncertainty of future market acceptance for our potential products. As a consequence of this enhanced risk, more risk averse investors may, under the fear of losing all or most of their investment in the event of negative news or lack of progress, be more inclined to sell their shares on the market more quickly and at greater discounts than would be the case with the stock of a seasoned issuer. Many of these factors will be beyond our control and may decrease the market price of our common stock, regardless of our operating performance. We cannot make any predictions or projections as to what the prevailing market price for our common stock will be at any time or as to what effect that the sale of shares or the availability of shares for sale at any time will have on the prevailing market price.

In addition, the market price of our common stock could be subject to wide fluctuations in response to:

- quarterly variations in our revenues and operating expenses;
- announcements of new products or services by us;
- fluctuations in interest rates;
- significant sales of our common stock;
- the operating and stock price performance of other companies that investors may deem comparable to us; and
- news reports relating to trends in our markets or general economic conditions.

Shares eligible for future sale may adversely affect the market.

From time to time, certain of our stockholders may be eligible to sell all or some of their shares of common stock by means of ordinary brokerage transactions in the open market pursuant to Rule 144 promulgated under the Securities Act of 1933, as amended, subject to certain limitations. In general, pursuant to Rule 144, a stockholder (or stockholders whose shares are aggregated) who is not an affiliate of our company and who has satisfied a six month holding period may, as long as we are current in our required filings with the SEC, sell securities without further limitation. Rule 144 also permits, under certain circumstances, the sale of securities, without any limitations, by a non-affiliate of our company who has satisfied a one year holding period. Affiliates of our company who have satisfied a six month holding period may sell securities subject to limitations. Any substantial sale of our common stock pursuant to Rule 144 or pursuant to any resale prospectus may have an adverse effect on the market price of our securities. Currently, a substantial majority of our securities are either free trading or subject to the release of trading restrictions under the six month or one year holding periods of Rule 144.

Certain provisions of our Certificate of Incorporation and Delaware law may make it more difficult for a third party to affect a change-in-control.

Our Certificate of Incorporation authorizes the Board of Directors to issue up to 20,000,000 shares of preferred stock and our Board of Directors has created and issued shares of three series of preferred stock that remain outstanding, including Series B, Series D, and, Series G Preferred Stock. The terms of the Series B, Series D and Series G Preferred Stock include, among other things, voting rights on particular matters (for example, with respect to the Series D Preferred Stock, restricting our ability to undergo a change in control or merge with, or sell assets to, a third party), preferences as to dividends and liquidation, and conversion rights. These preferred stock rights diminish the rights of holders of our common stock, and therefore could reduce the value of such common stock. In addition, as long as shares of our Series B, Series D and Series G Preferred Stock remain outstanding, or if our Board creates and issues additional shares of preferred stock in the future with rights that restrict our ability to merge with, or sell assets to, a third party, it could make it more difficult, delay, discourage, prevent or make it more costly to acquire the Company or affect a change-in-control.

The sale or issuance of our common stock to Purchasers may cause dilution and the sale of the shares of common stock acquired by Purchasers, or the perception that such sales may occur, could cause the price of our common stock to fall.

On October 7, 2014, we entered into the Securities Purchase Agreement with two institutional investors and Andrey Semechkin and Russell Kern, the Company's chief Executive Officer and Co-Chairman and Chief Scientific Officer and Director, respectively, pursuant to which Purchasers purchased 2,500 shares of Series H Convertible Preferred Stock initially convertible into 258,519 shares of our common stock, in addition to Series A, B, and C Warrants for 775,557 shares of our common stock, the Series A Warrants being exercisable for 5 and 1/2 years from the date of issuance. The conversion price of the Preferred Stock and Warrants is subject to certain resets as set forth in the Certificates of Designation and Warrants, including the date of the amendment to the certificate of incorporation with respect to any reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the Closing Date. Depending on market liquidity at the time, sales of such shares may cause the trading price of our common stock to fall.

The holders may ultimately convert all or some of the Series H Convertible Preferred Stock into shares of our common stock, exercise all or some of the Series A warrants to purchase shares of our common stock. Such shares acquired by such holders may be sold, as such holders may sell all, some or none of those shares. Therefore, the conversion of the preferred stock and exercise of warrants by such holders will result in substantial dilution to the interests of other holders of our common stock. Additionally, the conversion into a substantial number of shares of our common stock by such holders, or the anticipation of such conversion, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

The sale or issuance of a substantial number of shares may adversely affect the market price for our common stock.

The future sale of a substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could significantly and negatively affect the market price for our common stock. We expect that we will likely issue a substantial number of shares of our capital stock in financing transactions in order to fund our operations and the growth of our business. Under these arrangements, we may agree to register the shares for resale soon after their issuance. We may also continue to pay for certain goods and services with equity, which would dilute our current stockholders. Also, sales of the shares issued in this manner could negatively affect the market price of our stock.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

We have incurred substantial tax losses during our history. Subject to various limitations, we may carryforward unused taxable losses, including those generated in the future, and other available credits to offset any future taxable income until the unused losses or credits expire. Federal and state tax laws impose restrictions on the utilization of net operating loss ("NOL") and tax credit carryforwards in the event of an "ownership change" as defined by Section 382 of the Internal Revenue Code of 1986, as amended ("Section 382"). Generally, an ownership change occurs if the percentage of the value of the stock that is owned by one or more direct or indirect "five percent shareholders" increases by more than 50 percentage points over their lowest ownership percentage at any time during the applicable testing period (typically, three years). Under Section 382 and Section 383, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes to offset its post change income may be limited. Because of the cost and complexity involved in the analysis of a Section 382 ownership change and the fact that we do not have any taxable income to offset, we have not undertaken a study to assess whether an "ownership change" has occurred or whether there have been multiple ownership changes since we became a "loss corporation" as defined in Section 382. Future changes in our stock ownership, which may be outside of our control, may trigger an "ownership change." In addition, future equity offerings or acquisitions that have equity as a component of the purchase price could result in an "ownership change." If an "ownership change" has occurred or does occur in the future, our ability to utilize our NOL carryforwards or other tax attributes may be limited, which could result in an increased future tax liability to us.

The exercise of outstanding options and warrants to acquire shares of our common stock would cause additional dilution which could cause the price of our common stock to decline.

In the past, we have issued options and warrants to acquire shares of our common stock. At September 30, 2015, there were 473,130, warrants, for which we have reserved 473,130 shares of common stock, and 178,887 vested and 72,652 non-vested stock options outstanding, and we may issue additional options, warrants and other types of equity in the future as part of stock-based compensation, capital raising transactions, technology licenses, financings, strategic licenses or other strategic transactions. To the extent these options and warrants are ultimately exercised, existing common stockholders would experience additional dilution which may cause the price of our common stock to decline.

Limitations on director and officer liability and indemnification of our officers and directors by us may discourage stockholders from bringing suit against a director.

Our certificate of incorporation and bylaws provide, with certain exceptions as permitted by governing state law, that a director or officer shall not be personally liable to us or our stockholders for breach of fiduciary duty as a director, except for acts or omissions which involve intentional misconduct, fraud or knowing violation of law, or unlawful payments of dividends. These provisions may discourage stockholders from bringing suit against a director for breach of fiduciary duty and may reduce the likelihood of derivative litigation brought by stockholders on our behalf against a director. In addition, our certificate of incorporation and bylaws may provide for mandatory indemnification of directors and officers to the fullest extent permitted by governing state law.

Compliance with the rules established by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 is complex. Failure to comply in a timely manner could adversely affect investor confidence and our stock price.

Rules adopted by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 require us to perform an annual assessment of our internal controls over financial reporting and certify the effectiveness of those controls. The standards that must be met for management to assess the internal controls over financial reporting now in effect are complex, costly and require significant documentation, testing and possible remediation to meet the detailed standards. We may encounter problems or delays in completing activities necessary to make an

assessment of our internal controls over financial reporting. If we cannot perform the assessment or certify that our internal controls over financial reporting are effective investor confidence and share value may be negatively impacted.

We do not expect to pay cash dividends in the foreseeable future on our common stock.

We have not historically paid cash dividends on our common stock, and we do not plan to pay cash dividends on our common stock in the foreseeable future.

Risks Related to this Offering

Our management team will have immediate and broad discretion over the use of the net proceeds from this offering.

There is no minimum offering amount required as a condition to closing this offering and therefore net proceeds from this offering will be immediately available to our management to use at their discretion. The decisions made by our management may not result in positive returns on your investment and you will not have an opportunity to evaluate the economic, financial or other information upon which our management bases its decisions.

You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.

You will incur immediate and substantial dilution as a result of this offering. After giving effect to assumed sale of $[ ] of Class A Units in this offering and after deducting estimated placement agent commissions and estimated offering expenses payable by us, if you purchase securities in this offering, you will suffer immediate and substantial dilution of approximately $[ ] per share in the net tangible book value of the common stock you acquire. See "Dilution" below for a more detailed discussion of the dilution you will incur if you purchase shares in this offering.

The offering may not be fully subscribed, and, even if the offering is fully subscribed, we will need additional capital in the future. If additional capital is not available, we may not be able to continue to operate our business pursuant to our business plan or we may have to discontinue our operations entirely.

The placement agent in this offering will offer the securities on a "best-efforts" basis, meaning that we may raise substantially less than the total maximum offering amounts. We will not provide any refund to investors if less than all of the securities are sold. Further, during 2013, 2014 and 2015, we have used a significant amount of cash to finance the continued development and testing of our product candidates. If we continue to use cash at this rate we will need significant additional financing, which we may seek to raise through, among other things, public and private equity offerings and debt financing. Any equity financings will likely be dilutive to existing stockholders, and any debt financings will likely involve covenants restricting our business activities. Additional financing may not be available on acceptable terms, or at all.

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

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

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

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

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Information in this prospectus contains forward-looking statements. These forward-looking statements can be identified by the use of words such as "believes," "estimates," "could," "possibly," "probably," "anticipates," "projects," "expects," "may," or "should" or other variations or similar words. No assurances can be given that the future results anticipated by the forward-looking statements will be achieved. The following matters constitute cautionary statements identifying important factors with respect to those forward-looking statements, including certain risks and uncertainties that could cause actual results to vary materially from the future results anticipated by those forward-looking statements. A description of key factors that have a direct bearing on our results of operations is provided above under "Risk Factors" beginning on page 5 of this prospectus.

Additional information on factors that may affect our business and financial results can be found in our filings with the SEC. All forward-looking statements should be considered in light of these risks and uncertainties. We assume no responsibility to update forward-looking statements made in this prospectus.

USE OF PROCEEDS

We estimate that the net cash proceeds to us from the sale of the Units offered by this prospectus will be approximately $ assuming the sale of Units at an assumed public offering price of $ per Unit after deducting estimated placement agent fees and estimated offering expenses payable by us. However, we may not be successful in selling any or all of the securities offered hereby; as a result, we may receive significantly less in net proceeds, and the net proceeds received may not be sufficient to continue to operate our business.

An $ increase (decrease) in the assumed public offering price of $ per Unit would increase (decrease) the expected net cash proceeds of the offering to us by approximately $. An increase (decrease) of in the assumed number of Units sold in this offering would increase (decrease) the expected net cash proceeds of the offering to us by approximately $.

We currently expect to use the net proceeds from this offering to fund our research and development activities, including clinical and pre-clinical studies for the Parkinson's disease and endoderm programs, as well as for general working capital needs.

Even if we sell all of the securities offered hereby, we will still need to obtain additional financing in the future in order to fully fund these research and development activities, as well as any resulting product candidates through the regulatory approval process. We may seek such additional financing through public or private equity or debt offerings or other sources, including collaborative or other arrangements with corporate partners, and through government grants and contracts.

We anticipate that the net proceeds obtained from this offering will be used to fund the following initiatives in order of priority (in thousands):

Therapeutic research programs involving preclinical animal studies and new stem cell line derivation	$[ ]
General working capital purposes	$[ ]
Maximum net proceeds of the offering	$[ ]

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, we will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the proceeds of this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities. To the extent proceeds are received upon exercise of the Warrants, we intend to use any such proceeds for general corporate and working capital purposes.

DIVIDEND POLICY

Our Board of Directors determines any payment of dividends. We have never declared or paid cash dividends on our common stock. We do not expect to authorize the payment of cash dividends on our shares of common stock in the foreseeable future. Any future decision with respect to dividends will depend on our future earnings, operations, capital requirements and availability, restrictions in future financing agreements and other business and financial considerations.

MARKET PRICE OF AND DIVIDENDS ON COMMON STOCK AND RELATED MATTERS

Market Information

Our common stock is approved for quotation on the OTC QB under the trading symbol "ISCO". The OTC QB is a regulated quotation service that displays real-time quotes, last-sale prices and volume information in over-the-counter equity securities. The OTC QB securities are traded by a community of market makers that enter quotes and trade reports. This market is limited in comparison to an exchange and any prices quoted may not be a reliable indication of the value of our common stock.

As of September 30, 2015, we had approximately 2,148,000 shares of common stock outstanding, and approximately 636 holders of record of our common stock, and we had 5,300,543 shares of preferred stock outstanding, and eight holders of record of our preferred stock, with the 5,300,543 shares of preferred stock being convertible into 3,053,910 shares of common stock.

The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not reflect actual transactions. The high and low sales prices per share of our common stock, as reported by OTC QB for each quarter during fiscal years 2015, 2014, and 2013, are reported below:

	Market Price	
	High	Low
Fiscal Year 2015		
First Quarter	$10.50	$ 9.00
Second Quarter	$10.50	$ 6.00
Third Quarter	$ 7.50	$ 1.80
Fourth Quarter (through November 24, 2015)	$ 6.50	$ 3.01
Fiscal Year 2014		
First Quarter	$39.00	$28.50
Second Quarter	$28.50	$10.50
Third Quarter	$21.00	$ 9.00
Fourth Quarter	$16.50	$10.50
Fiscal Year 2013		
First Quarter	$58.50	$28.50
Second Quarter	$45.00	$34.50
Third Quarter	$37.50	$21.00
Fourth Quarter	$39.00	$21.00

DILUTION

Our net tangible book value as of , 2015 was approximately $[ ] million, or $[ ] per share of common stock. If you invest in our Units in this offering, your common stock ownership interest will be diluted to the extent of the difference between the public offering price per Unit and our pro forma net tangible book value per share after this offering. We calculate net tangible book value per share by dividing our net tangible book value, which is tangible assets less total liabilities, by the number of outstanding shares of our common stock.

After giving effect to the assumed sale of Units at an assumed offering price of $ per share and after deducting the commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of , 2015 would have been approximately $ million, or $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and immediate dilution in net tangible book value of $ per share to new investors participating in this offering at the assumed offering price. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share	$
Net tangible book value per share as , 2015	$[ ]
Increase per share attributable to investors purchasing our common stock in this offering	$
As adjusted net tangible book value per share as of , 2015, after giving effect to this offering	$
Dilution in net tangible book value per share to investors purchasing our common stock in this offering	$

The dilution table above assumes no sale of Series B Units and no exercises of an Warrants included in the Units and is based on [ ] shares of common stock outstanding and excludes, as of November 20, 2015, any impact of the following:

- 251,539 shares of common stock issuable upon exercise of outstanding stock options, including those options issued outside our stock option plans, at a weighted average exercise price of $83.65 per share;
- 50,417 shares of common stock reserved for issuance under various outstanding warrant agreements, at an exercise price of $30.00 per share, 1,334 shares of common stock reserved for issuance under other warrants, at an average exercise price of $262.50 per share, and 113,750 shares of common stock reserved for issuance under other warrants, at an exercise price of $1.7933 per share;
- 3,053,910 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series B, Series D, Series G, and Series H Preferred Stock;
- 1,050,916 additional shares of common stock reserved for future issuance under our 2006 and 2010 stock incentive plans.

The information above assumes only Class A Units are sold in this offering. To the extent we sell any Class B Units, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series I Preferred issued as part of the Class B Units.

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

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes and other financial information included elsewhere in this prospectus. The discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties, such as our plans, expectations and intentions. Our actual results may differ significantly from management's expectations. This discussion should not be construed to imply that the results discussed herein will necessarily continue into the future, or that any conclusion reached herein will necessarily be indicative of actual operating results in the future. Such discussion represents only the best present assessment by our management.

Results of Operations

Three and nine months ended September 30, 2015 compared with the three and nine months ended September 30, 2014

Revenue for the three months ended September 30, 2015, totaled $2.1 million, compared to $2.0 million for the three months ended September 30, 2014. LCT contributed $1,213,000 or 57% of total revenue for the three months ended September 30, 2015, compared to $993,000 or 51% for the three months ended September 30, 2014. The increase of $220,000 or 22% in LCT's revenue for 2015 was driven primarily by higher sales of media and custom products. LSC's revenue of $923,000 for the three months ended September 30, 2015 accounted for 43% of total revenue, compared to $970,000 or 49% of total revenue for the three months ended September 30, 2014. The decrease of $47,000 or 5% in LSC's revenue consists primarily of an increase of $123,000 in professional sales, offset by a decrease of $170,000 in e-commerce and international sales.

Revenue for the nine months ended September 30, 2015, totaled $5.6 million, compared to $5.2 million for the nine months ended September 30, 2014. LCT contributed $2.9 million or 52% of total revenue for the nine months ended September 30, 2015, compared to $2.7 million or 52% for the nine months ended September 30, 2014. A $244,000 increase in LCT's revenue for 2015 consists primarily of a $195,000 increase in sales of cells, media and custom products, and $49,000 increase in sales to OEM customers. LSC's revenue of $2.7 million for the nine months ended September 30, 2015 accounted for 48% of total revenue, compared to $2.5 million or 48% of total revenue for the nine months ended September 30, 2014. The increase of $129,000 or 5% in LSC's revenue consists primarily of an increase of $450,000 in professional and international sales, offset by a decrease of $321,000 in e-commerce sales.

Cost of sales

Cost of sales for the three months ended September 30, 2015 was $565,000 or 26% of revenue, compared to $518,000 or 26% of revenue for the three months ended September 30, 2014. While our overall cost of sales as a percentage of revenue stayed relatively unchanged, LCT's cost of sales as a percentage of LCT's revenue decreased approximately 8 percentage points and LSC's cost of sales as a percentage of LSC's revenue increased approximately 8 percentage points. LCT's cost of sales for the three months ended September 30, 2015 was $334,000 or 28% of LCT's revenue, compared to $356,000 or 36% of LCT's revenue for the three months ended September 30, 2014. The decrease in cost of sales percentage for LCT is primarily due to a more favorable sales mix as well as efficiency gains in our operations for the three months ended September 30, 2015, compared to the corresponding period in 2014. LSC's cost of sales was $231,000 or 25% of LSC's revenue for the three months ended September 30, 2015, compared to $162,000 or 17% of LSC's revenue for the three months ended September 30, 2014. The $69,000 increase in cost of sales for LSC is primarily attributable to a $35,000 increase in material costs, $16,000 in consulting costs, and $14,000 increase in scrapped and expired inventory. Cost of sales for the nine months ended September 30, 2015 was $1.50 million or 27% of revenue, compared to $1.37 million or 26% of revenue for the nine months ended September 30, 2014. While our overall cost of sales as a percentage of revenue stayed relatively the same, LCT's cost of sales as a percentage of LCT's revenue

decreased approximately 6 percentage points and LSC's cost of sales as a percentage of LSC's revenue increased approximately 8 percentage points. LCT's cost of sales for the nine months ended September 30, 2015 was $949,000 or 32% of LCT's revenue, compared to $1.03 million or 38% of LCT's revenue for the nine months ended September 30, 2014. The decrease in cost of sales percentage for LCT is primarily due to a more favorable sales mix as well as efficiency gains in our operations for the nine months ended September 30, 2015, compared to the corresponding period in 2014. LSC's cost of sales was $550,000 or 21% of LSC's revenue for the nine months ended September 30, 2015, compared to 334,000 or 13% of LSC's revenue for the nine months ended September 30, 2014. The $216,000 increase in cost of sales for LSC is primarily attributable to a $156,000 increase in material costs, $46,000 increase in scrapped and expired inventory, and $16,000 in consulting costs.

Cost of sales reflects direct costs including salaries and benefits related to manufacturing, third party manufacturing costs, materials, general laboratory supplies and an allocation of overhead. We aim to continue refining our manufacturing processes and supply chain management to improve the cost of sales as a percentage of revenue for both LCT and LSC.

Research and Development ("R&D")

Research and development expenses were $508,000 for the three months ended September 30, 2015, compared to $1.39 million for the same period in 2014. The decrease of $884,000 or 64% is primarily due to decreased stem cell line research and preclinical testing expenses of $757,000, a reduction in employee-related spending of $59,000, decreased stock-based compensation of $48,000, decreased material and supply costs of $10,000, partially offset by increased consulting costs of $11,000.

Research and development expenses were $2.19 million for the nine months ended September 30, 2015, compared to $3.76 million for the same period in 2014. The decrease of $1.57 million or 42% is primarily due to decreased stem cell line research and preclinical testing expenses of $1,230,000, a reduction in employee-related spending of $131,000, decreased stock-based compensation of $100,000, decreased material and supply costs of $98,000, partially offset by increased consulting costs of $29,000.

Our R&D efforts are primarily focused on the development of treatments for Parkinson's disease (PD), metabolic liver diseases (such as Crigler-Najjar syndrome, (CNS) and Alpha 1-antitrypsin deficiency (A1AD)), diseases of the eye and the creation of new cGMP grade human parthenogenetic stem cell lines. These projects are long-term investments that involve developing both new stem cell lines and new differentiation techniques that can provide higher purity populations of functional cells. We do not expect these projects to provide near-term revenue, although we have published milestones including the release of preclinical rodent and non-human primate (NHP) PD study data in the first quarter of 2013. We have experienced decreased R&D expenditures in 2015 as a result of the completion of pre-clinical studies.

Research and development expenses are expensed as they are incurred, and are accounted for on a project by project basis. However much of our research has potential applicability to each of our projects.

Selling and Marketing Expense

Selling and marketing expenses for the three months ended September 30, 2015 were $712,000, compared to $745,000 in the three months ended September 30, 2014. The decrease of $33,000 or 4% was primarily due to lower website support costs of $50,000, creative services of $18,000, shipping costs of $15,000, tradeshow costs of $5,000, and stock compensation of $5,000, partially offset by higher advertising costs of $30,000, marketing materials and samples of $29,000, and logistics costs of $12,000.

Selling and marketing expenses for the nine months ended September 30, 2015 were $1.97 million, compared to $2.09 million in the nine months ended September 30, 2014. The decrease of $125,000 or 6% was primarily due to lower marketing materials and samples of $40,000, website support costs of $148,000, investor

relations costs of $36,000, tradeshow costs of $27,000, shipping costs of $9,000, creative services of $21,000, and stock based compensation expenses of $10,000, partially offset by higher advertising expenses of $95,000, consulting costs of $23,000, and logistics costs of $42,000.

We continued to intensify our marketing efforts by refining our sales and marketing strategies, expanding our sales channels and strengthening our operations to achieve target sales goals.

General and Administrative Expenses

General and administrative expenses for the three months ended September 30, 2015 were $973,000, reflecting a decrease of $369,000 or 27%, compared to $1.34 million for the same period in 2014. The decrease is primarily attributable to decreases in stock based compensation expense of $271,000, employee related costs of $90,000, and consulting expenses of $20,000, partially offset by increases in investor relations related costs of $31,000.

General and administrative expenses for the nine months ended September 30, 2015 were $3.44 million, reflecting a decrease of $884,000 or 20%, compared to $4.32 million for the same period in 2014. The decrease is primarily attributable to decreases in stock based compensation costs of $576,000, investor relations related costs of $170,000, employee related costs of $199,000, facility and office costs of $67,000 and consulting expense of $64,000, partially offset by increases in accounting fees of $69,000, patent impairment expense of $60,000, and filing fees of $36,000.

Other Income/Expense

Other income was $83,000 for the three months ended September 30, 2015, mainly due to income of $87,000 from the reduction in the fair value of warrants related to the October 2014 financing transaction. We had no other income for the three months ended September 30, 2014.

Other income was $2.42 million for the nine months ended September 30, 2015, compared to other expense of $1.54 million for the same period in 2014. The increase of $3.96 million in net other income is mainly due to an increase of $574,000 of other income resulted from the change in the fair value of warrants related to the October 2014 financing transaction and a decrease of $3.45 million of warrant exchange inducement expense.

Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Revenues

Revenue for the year ended December 31, 2014, totaled $7.02 million, compared to $6.15 million in 2013. LCT contributed $3.51 million or 50% of total revenue in 2014, compared to $2.94 million or 48% of total revenue in 2013. The increase of $567,000 or 19% in LCT's revenue for 2014 was driven primarily by higher sales to OEM customers and international distributors. LSC's revenue of $3.51 million in 2014 accounted for 50% of total revenue, compared to $3.21 million or 52% of total revenue in 2013. In 2014, LSC's revenue increased by $303,000 or 9% due to our strategic efforts to expand and diversify sources of revenue across all channels. We saw the greatest sales growth in professional and international accounts.

Cost of Sales

Cost of sales for the year ended December 31, 2014 was $1.92 million or 27% of revenue, compared to $1.64 million or 27% of revenue in 2013. While our overall cost of sales as a percentage of revenue stayed stable, LCT's cost of sales decreased approximately 1% as a percentage of sales and LSC's cost of sales increased approximately 4% as a percentage of sales. LCT's cost of sales for the year ended December 31, 2014 was $1.38 million or 20% of sales, compared to $1.29 million or 21% of sales for the same period in the prior year. The decrease in cost of sales for LCT is primarily due to a more favorable sales mix as well as efficiency gains in our

operations for the year ended December 31, 2014 compared to 2013. LSC's cost of sales was $540,000 or 15% of revenues during 2014, compared to $355,000 or 11% of revenues in the prior year. The increase in cost of sales for LSC is primarily due to a shift in our sales mix, with a lower portion of our sales recorded from ecommerce compared to other sales channels, which have higher sales costs.

Cost of sales reflects direct costs including salaries and benefits related to manufacturing, third party manufacturing costs, materials, general laboratory supplies and an allocation of overhead. We aim to continue refining our manufacturing processes and supply chain management to further improve the cost of sales as a percentage of revenue for both LCT and LSC.

Research and Development ("R&D")

Research and development expenses were $5.39 million for the year ended December 31, 2014, compared to $3.56 million in 2013. R&D expense increased approximately $1.83 million or 51% primarily due to higher stem cell line research and pre-clinical testing expenses of $2.24 million, partially offset by lower employee related spending of $109,000, lower consulting costs of $126,000, lower tissue donation costs of $98,000, lower lab supplies and materials of $95,000 and lower stock-based compensation expense of $58,000.

Our R&D efforts are primarily focused on the development of treatments for Parkinson's disease (PD), metabolic liver diseases (such as Crigler-Najjar syndrome, (CNS) and Alpha 1-antitrypsin deficiency (A1AD)), diseases of the eye and the creation of new cGMP grade human parthenogenetic stem cell lines. These projects are long-term investments that involve developing both new stem cell lines and new differentiation techniques that can provide higher purity populations of functional cells. We do not expect these projects to provide near-term revenue, although we have published milestones including the release of pre-clinical rodent and non-human primate (NHP) PD study data in the first quarter of 2013. We anticipate decreased R&D expenditures in 2015 as a result of the pre-clinical study completion.

Research and development expenses are expensed as they are incurred, and are accounted for on a project by project basis. However, much of our research has potential applicability to each of our projects.

Selling and Marketing Expense

Marketing expenses for the year ended December 31, 2014 amounted to $2.79 million, reflecting an increase of approximately $328,000 or 13%, as compared to $2.46 million in 2013. The increase in spending was primarily due to higher employee related spending of $145,000, higher consulting and creative expenses of $205,000, higher website support costs of $27,000, higher marketing materials, samples and printing of $27,000, higher logistics costs of $17,000 and higher temporary service cost of $16,000. Commission expense increased $130,000 due to higher sales. These increases were partially offset by a reduction in advertising expense of $253,000, and reduction in investor relations of $34,000.

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2014 were $5.6 million, reflecting a decrease of $428,000 or 7%, compared to $6.03 million in 2013. The decrease is primarily attributable to a more streamlined operating cost structure including lower employee stock-based compensation of $155,000, reduced employee-related spending of $113,000 resulting from lower headcount, lower temporary service costs of $119,000, lower investor relations costs of $91,000, lower common stock for services expense of $41,000, and lower consulting expense of $32,000. These decreases were partially offset by an increase in audit and accounting fees of $55,000, increase in patent impairment costs of $40,000, increase in annual meeting costs of $38,000, and increase in building related costs of $23,000.

Other Income/Expense

Other expense was $3.78 million for the year ended December 31, 2014, primarily due to recognizing a loss of $3.45 million for the warrant exchange inducement expense, loss of $1.78 million for the fair value of warrant liability in excess of the investment proceeds received from our stock offering completed in October 2014, and associated financing costs of $984,000, partially offset by the income of $2.41 million for the change in fair value of the warrant liability and subsequent revaluations from our registered stock and warrant offerings completed in July 2013 and October 2014. In 2013, we recorded other expense of $2.93 million primarily due to recognizing $1.39 million for the fair value of warrant liability in excess of the investment proceeds received from our stock offering completed in July 2013, plus the associated financing costs of $738,000, plus the net loss from the subsequent revaluations of the warrant liability of $754,000.

Liquidity and Capital Resources

Three and nine months ended September 30, 2015 compared with the three and nine months ended September 30, 2014

As of September 30, 2015, our cash and cash equivalents totaled $599,000, compared to $1.1 million as of December 31, 2014. At September 30, 2015, we had a working capital deficit of $2.8 million, compared to a $3.2 million deficit as of December 31, 2014. The $439,000 decrease in working capital deficit is primarily due to $2.9 million increase in related party payable to support the ongoing operations of the Company, $562,000 decrease in cash and cash equivalents and restricted cash, partially offset by decrease in accounts payable and accrued liabilities of $482,000, $2.9 million decrease in the fair value of the warrant liability related to our October 2014 Securities Purchase Agreement, $162,000 increase in accounts receivable, $357,000 increase in inventory and $20,000 increase in prepaid and other current assets.

Operating Cash Flows

Net cash used in operating activities was $3.45 million for the nine months ended September 30, 2015, compared to $4.45 million for the corresponding period in 2014. The primary factor contributing to the variability in the reported cash flow amounts relates to the net loss after non-cash adjustments totaling $2.6 million, increase in accounts receivable of $161,000, increase in inventory of $249,000, and decrease in accounts payable and accrued liabilities of $482,000 in the nine months ended September 30, 2015, compared to $4.6 million of net loss after non-cash adjustments, increase in accounts receivable of $158,000, increase in inventory of $194,000, decrease in prepaid and other assets of $299,000, and increase in accounts payable and accrued liabilities of $193,000 for the same period in 2014.

Investing Cash Flows

Net cash used in investing activities was $530,000 for the nine months ended September 30, 2015, compared to $746,000 in the same period in 2014. The decrease was primarily the result of lower payments for capital expenditure of $230,000.

Financing Cash Flows

Net cash provided by financing activities was $3.46 million for the nine months ended September 30, 2015, compared to $3.43 million in the same period in 2014. During the nine months ended September 30, 2015, $2.86 million was received from a bridge loan from a related party having a maturity date of October 9, 2015 (which has subsequently extended to January 10, 2016) and $602,000 was received from the exercises of warrants issued in the October 2014 financing transaction. Approximately $1.42 million of the net proceeds of $3.43 million received during the nine months ended September 30, 2014 was attributable to the issuance of 54,000 shares of common stock, net of stock issuance costs of $169,000 under the purchase agreement with Lincoln Park Capital,

LLC ("Lincoln Park"), which we entered into in December 2013. In addition, we received net proceeds of $2.1 million from the sale of 129,000 shares to Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer and Dr. Russell Kern, our Chief Scientific Officer and a director. The shares were offered and sold to the purchasers in private placement transactions.

Management continues to evaluate various financing sources and options to raise working capital to help fund our current research and development programs and operations. We will need to obtain significant additional capital from sources including exercise of outstanding warrants, equity and/or debt financings, license arrangements, grants and/or collaborative research arrangements to sustain our operations and develop products. Unless we obtain additional financing, we do not have sufficient cash on hand to operate for 12 months from the condensed consolidated balance sheet date. The timing and degree of any future capital requirements will depend on many factors, including:

- the accuracy of the assumptions underlying our estimates for capital needs in 2015 and beyond;
- the extent that revenues from sales of LSC and LCT products cover the related costs and provide capital;
- scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs and our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our progress with preclinical development and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the number and type of product candidates that we pursue.

Additional financing through strategic collaborations, public or private equity financings or other financing sources may not be available on acceptable terms, or at all. Additional equity financing could result in significant dilution to our stockholders. Additional debt financing may be expensive and require us to pledge all or a substantial portion of our assets. Further, if additional funds are obtained through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise seek to develop and commercialize on our own. If sufficient capital is not available, we may be required to delay, reduce the scope of or eliminate one or more of our product initiatives.

We currently have no revenue generated from our principal operations in therapeutic and clinical product development through research and development efforts. We need to raise additional working capital. The timing and degree of any future capital requirements will depend on many factors. For the nine months ended September 30, 2015, our average burn rate was approximately $383,000 per month, excluding capital expenditures and patent costs averaging $59,000 per month. There can be no assurance that we will be successful in maintaining our normal operating cash flow and obtaining additional funds and that the timing of our capital expenditures will result in cash flow sufficient to sustain our operations through September 30, 2016. Additionally, pursuant to the terms of the October 2014 Securities Purchase Agreement entered into in connection with the private placement, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park, or otherwise enter into a variable rate transaction, until March 2016. The Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers, directors and employees at market prices and issuing securities pursuant to the Company's equity incentive plans.

Based on the factors above, there is substantial doubt about our ability to continue as a going concern. The condensed consolidated financial statements were prepared assuming that we will continue to operate as a going concern. The condensed consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty. Management's plans in regard to these matters are focused on managing our cash flow, the proper timing of our capital expenditures, and raising additional capital or financing in the future.

We do not currently have any obligations for milestone payments under any of our licensed patents other than the minimum license fee of $75,000 annually, payable in two installments per year to Ocata pursuant to the amended UMass IP license agreement. No licenses are terminable at will by the licensor. For further discussion of our patents, see Note 4 to our condensed consolidated financial statements.

Off-Balance Sheet Arrangements

As of September 30, 2015, we did not have any off-balance sheet arrangements.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the U.S. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. On an on-going basis, we evaluate our estimates and assumptions, including those related to revenue recognition, allowances for accounts receivable, inventories, intangible assets, warrant liabilities, stock-based compensation and income taxes. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions.

We believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Previously we were a Development Stage Company

During the quarter ended December 31, 2013, we exited the development stage based on a consistently, increasing revenue trend and more significant revenue totals generated from our two commercial businesses. We have been in the development stage from inception through to the quarter ended September 30, 2013, and have accumulated losses from inception through the quarter ended September 30, 2015, and expect to incur additional losses in the near future. We currently have no revenue generated from our principal operations in therapeutic pre-clinical and clinical product development through our research and development efforts.

Inventories

Inventories are accounted for using the first-in, first-out (FIFO) method for our Lifeline Cell Technology ("LCT") cell culture media and reagents, average cost and specific identification methods for our Lifeline Skin Care ("LSC") products, and specific identification method for our Lifeline Cell Technology products. We state our inventory balances at the lower of cost or market. Lab supplies used in the research and development process are expensed as consumed. Inventory is reviewed periodically for product expiration and obsolescence and is adjusted accordingly.

Property and Equipment

We record property and equipment at cost. The provision for depreciation and amortization is computed using the straight-line method over the estimated useful lives of the assets, generally over five years. The costs of major remodeling and leasehold improvements are capitalized and depreciated over the shorter of the remaining term of the lease or the life of the asset.

Intangible Assets

Intangible assets consist of acquired research and development rights used in research and development, and capitalized legal fees related to the acquisition, filing, maintenance, and defense of patents. Patents and patent licenses are recorded at cost and are amortized on a straight-line basis over the shorter of the lives of the underlying patents or the useful life of the intangible asset, generally 15 years. Intangible asset amortization expenses are included in research and development expenses.

Long-Lived Asset Impairment

We review long-lived assets for impairment when events or changes in business conditions indicate that their carrying value may not be recovered, at least annually. We consider assets to be impaired and write them down to fair value if expected associated undiscounted cash flows are less than the carrying amounts. Fair value is the present value of the associated cash flows. Due to the numerous variables associated with our judgments and assumptions relating to the carrying value of our intangible assets and the effects of changes in circumstances affecting these valuations, both the precision and reliability of the resulting estimates are subject to uncertainty. As additional information becomes known, we may change our estimate, in which case the likelihood of a material change in our reported results would increase.

Revenue Recognition

We recognize revenue when all four of the following criteria are met: (i) persuasive evidence that an arrangement exists; (ii) delivery of the products and/or services has occurred; (iii) the selling price is fixed or determinable; and (iv) collectability is reasonably assured. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenues recognized for any reporting period could be adversely impacted.

We recognize revenue from product sales at the time of shipment to the customer, provided no significant obligations remain and collection of the receivable is reasonably assured. If the customer has a right of return, we recognize product revenues upon shipment, provided that future returns can be reasonably estimated. In the case where returns cannot be reasonably estimated, revenue will be deferred until such estimates can be made or the right of return has expired.

Cost of Sales

Cost of sales consists primarily of salaries and benefits associated with employee efforts expended directly on the production of the Company’s products and include related direct materials, general laboratory supplies and allocation of overhead. Certain of the agreements under which we have licensed technology will require the payment of royalties based on the sale of its future products. Such royalties will be recorded as a component of cost of sales. Additionally, the amortization of license fees or milestone payments related to developed technologies used in our products will be classified as a component of cost of sales to the extent such payments become due in the future. Cost of sales included salaries and benefits related to manufacturing, third party manufacturing costs, raw materials, general laboratory supplies and an allocation of overhead.

Research and Development Costs

Research and development costs, which are expensed as incurred, are primarily comprised of salaries and benefits associated with research and development personnel, overhead and occupancy, contract services, and amortization of license costs for technology used in research and development with alternative future uses.

Registration Payment Arrangements

We are required to separately recognize and measure registration payment arrangements, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement. Such payments include penalties for failure to effect a registration of securities.

Stock-Based Compensation

We are required to measure and recognize compensation expense for all stock-based payment awards made to employees and consultants based on estimated fair value. We estimate the fair value of stock options granted using the Black-Scholes option-pricing model.

The determination of fair value of stock-based awards using the Black-Scholes option-pricing model requires the use of certain estimates and highly judgmental assumptions that affect the amount of stock-based compensation expense recognized in our Consolidated Statements of Operations. These include estimates of the expected volatility of our stock price, expected option life, expected dividends and the risk-free interest rate. Estimated volatility is a measure of the amount by which our stock price is expected to fluctuate each year during the expected life of the award. The expected option life is calculated using the mid-point method as prescribed by accounting guidance for stock-based compensation. We determined expected dividend yield to be 0% given that we have never declared or paid any cash dividends on our common stock, and we currently do not anticipate paying such cash dividends. The risk-free interest rate is based upon U.S. Treasury securities with remaining terms similar to the expected term of the share-based awards. If any of the assumptions used in the Black-Scholes model change significantly, stock-based compensation expense may differ materially from what we have recorded in the current period.

Income Taxes

We account for income taxes in accordance with provisions which set forth an asset and liability approach that requires the recognition of deferred tax assets and deferred tax liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Valuation allowances are established when necessary to reduce deferred tax assets to the amount that is more likely than not expected to be realized. In making such a determination, a review of all available positive and negative evidence must be considered, including scheduled reversal of deferred tax liabilities, projected future taxable income, tax planning strategies, and recent financial performance.

Concentration of Credit Risk

We maintain our cash and cash equivalents in banks located primarily in the United States. Beginning December 31, 2010, through December 31, 2012, all noninterest-bearing transaction accounts were fully insured by the Federal Deposit Insurance Corporation (“FDIC”), regardless of the balance of the account, at all FDIC-insured institutions, upon the implementation of section 343 of the Dodd-Frank Wall Street Reform and Consumer Protection Act that provided for unlimited insurance coverage of noninterest-bearing transaction accounts. After December 31, 2012, our accounts are guaranteed by the FDIC up to $250,000 per financial institution.

Income (Loss) Per Common Share

The computation of net loss per common share is based on the weighted average number of shares outstanding during each period. The computation of diluted earnings per common share is based on the weighted average number of shares outstanding during the period plus the common stock equivalents, which would arise from the exercise of stock options and warrants outstanding using the treasury stock method and the average market price per share during the period.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (the "FASB") issued Accounting Standard Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP. ASU No. 2014-09 will be effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period, which for the Company will be its 2018 fiscal quarter. The standard permits the use of either retrospective or cumulative effect transition method. The Company is evaluating the effect that ASU 2014-09 will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor has it determined the effect of the standard on its ongoing financial reporting.

In July 2015, the Financial Accounting Standards Board (the "FASB") issued ASU No. 2015-11, *Simplifying the Measurement of Inventory*, which states that an entity should measure inventory within the scope of this Update at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. ASU No. 2015-11 will be effective for annual reporting periods beginning after December 15, 2016, including interim periods within those fiscal years, which for the Company will be its 2017 fiscal quarter. The amendments in this Update should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company is evaluating the effect that ASU 2015-11 will have on its consolidated financial statements and related disclosures. The Company has not yet determined the effect of the standard on its ongoing financial reporting.

BUSINESS

Business Overview

International Stem Cell Corporation (sometimes referred to herein as "ISCO", the "Company", "we", "us", or "our") is a biotechnology company focused on therapeutic and biomedical product development with multiple long-term therapeutic opportunities and two revenue-generating businesses offering potential for increased future revenue.

We currently have no revenue generated from our principal operations in therapeutic and clinical product development through research and development efforts. We have generated revenue from our two commercial businesses, cosmetic and research products, of a total of $7.0 million and $6.1 million for the years ended December 31, 2014 and 2013, respectively.

Our products are based on multi-decade experience with human cell culture and a proprietary type of pluripotent stem cells, "human parthenogenetic stem cells" ("hpSCs"). Our hpSCs are comparable to human embryonic stem cells ("hESCs") in that they have the potential to differentiate into many types of more specialized human cells. However, the derivation of hpSCs does not require the use of fertilized eggs or the destruction of viable human embryos and also offers the potential for the creation of immune-matched cells and tissues that are less likely to be rejected following transplantation. ISCO scientists have created the first parthenogenetic, homozygous stem cell line that can be a source of therapeutic cells for hundreds of millions of individuals of differing genders, ages and racial background with minimal immune rejection after transplantation. We have facilities and manufacturing processes that we believe comply with the requirements of current Good Manufacturing Practice (GMP) standards as defined by the U.S. Code of Federal Regulations and promulgated by the U.S. Food and Drug Administration ("FDA").

We are developing different cell types from our stem cells that may result in therapeutic products. We focus on applications where cell and tissue therapy is already proven but where there is an insufficient supply of functional cells or tissue. We believe that the most promising potential clinical applications of our technology are:

- Neural stem cells for treatment of Parkinson's disease and potentially other central nervous system disorders, such as traumatic brain injury, stroke and Alzheimer's disease.
- Liver cells ("hepatocytes") that may be used to treat a variety of congenital and acquired liver diseases. Using the same precursor cell that leads to liver cells, it is also possible to create islet cells for potential treatment of diabetes.
- Retinal cells and three-dimensional eye structures including corneal cells and tissue to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

We have completed our IND-enabling pre-clinical studies on our most advanced program, the development of neural stem cells for the treatment of Parkinson's disease and filed the regulatory submission to the Australian Therapeutic Goods Administration ("TGA") to start a phase 1/2a clinical trial in Australia. Each of these product candidates will require extensive pre-clinical and clinical development and may require specific unforeseen licensing rights obtained at substantial cost before regulatory approval may be achieved and the products sold for therapeutic use.

Market Opportunity and Growth Strategy

Therapeutic Market – Clinical Applications of hpSCs for Disease Treatment

Parkinson's disease ("PD") is the second most common neurodegenerative disease and, according to the Parkinson Disease Foundation, there are more than one million sufferers in the United States and more than $2 billion is spent on medication. Currently there is no cure for PD and the improvements in symptoms provided by PD drugs often diminish with time. Using our proprietary technologies and know-how, we are creating neural stem cells from hpSCs as a potential treatment of PD and potentially other central nervous system disorders in order to address this significant market opportunity.

Liver disease affects one in ten persons according to the American Liver Foundation, and is one of the top ten leading causes of death in the United States. There are more than 100 individual diseases of the liver and, for people with liver failure; the only effective treatment is full or partial organ transplantation. However, the demand for liver organs far exceeds the number available. According to the American Liver Foundation, over 16,000 individuals in the United States are waiting for a transplant. Using our proprietary technologies and know-how, we are creating liver cells from hpSCs that may be used to treat a variety of hepatic and metabolic liver diseases to address this significant market opportunity. Importantly, liver cell transplantation has already been used in early stage clinical trials to treat patients with liver failure and has proven especially useful as a "bridge" to keep patients alive until they can receive a whole liver transplant.

Corneal blindness currently affects between seven and eight million people worldwide according to the World Health Organization. Using our proprietary technologies and know-how, we are creating cornea-like structures from hpSCs. These clear hollow spheres are composed of tissue with a three-dimensional layered structure similar to what is found in normal corneal tissue. Portions or all of these tissue layers may be suitable for corneal transplantation in humans. In addition, corneal cells can be used for coating contact lenses to accelerate corneal healing.

Diseases involving retinal degeneration include age-related macular degeneration ("AMD") and retinitis pigmentosa ("RP"). These diseases are characterized by the death of critical photoreceptor cells called "rods" and "cones". Photoreceptor death is due to an abnormality and/or to disruption or death of supportive cells called retinal pigment epithelial ("RPE") cells. According to the Center for Disease Control and Prevention, approximately 1.8 million Americans aged 40 and over are affected by AMD.

Cosmetic Market – Skin Care Products

Products that provide anti-aging benefits represent a significant portion of the global facial skincare market. In key regions, such as the U.S. and Asia, the growth of the facial skincare market is driven by increases in consumer disposable income and growing popularity of skincare products based on biotechnology, such as human stem cells. Currently this market segment is in its early stages of development and we believe it has a significant growth potential. Our goal is to leverage our leadership in human stem cell technology to develop and commercialize advanced anti-aging skincare products for our retail, professional, and international channels.

Our wholly-owned subsidiary, Lifeline Skin Care, Inc. ("LSC"), develops, manufactures and markets a line of luxury skincare products with anti-aging benefits that is based on our proprietary stem cell extract.

LSC's products are sold in United States and internationally through a branded website, through professional channels (including dermatologists, plastic surgeons; medical, day and resort spas,) and a network of international distributors.

Biomedical Market – Primary Human Cell Research Products

The global market for human cell systems for use in basic research is extremely large, with continuing anticipated growth. We believe that the following are the main drivers in the research market:

- The need for experimental human cells which are more predictive of human biology than are non-human cells or genetically-modified cell lines or living non-human animals.
- The emerging field of stem-cell-based regenerative medicine and the increase in associated grant money to study stem cells is driving the market not only for stem cell products but also for cell culture products in general.
- The desire to lower the cost of drug development in the pharmaceutical industry. We believe that human cell systems may provide a platform for screening toxic drugs early in the development process, thus avoiding late stage failures in clinical trials and reducing costs.

- The need to eliminate animal products in research reagents that may contaminate future therapeutic products.
- The need for experimental control. Serum-free defined media provides the benefit of experimental control because there are fewer undefined components.
- The need for consistency in experiments that can be given by quality controlled products.
- The need to eliminate in-house formulation of media, obtain human tissue or perform cell isolation.
- The need to reduce animal testing in the consumer products industry.

Our wholly-owned subsidiary Lifeline Cell Technology, LLC ("LCT") develops, manufactures and commercializes over 160 human cell culture products, including frozen human "primary" cells and the reagents (called "media") needed to grow, maintain and differentiate the cells, in order to address this significant market opportunity. LCT's scientists have used a technology called basal medium optimization to systematically produce optimized products designed to culture specific human cell types and to elicit specific cellular behaviors. These techniques also produce products that do not contain non-human animal proteins, a feature desirable to the research and therapeutic markets.

Each LCT cell product is quality tested for the expression of specific markers (to assure the cells are the correct type), proliferation rate, viability, morphology and absence of pathogens. Each cell system also contains associated donor information and all informed consent requirements are strictly followed. LCT's research products are marketed and sold by its internal sales force, OEM partners and LCT brand distributors in Europe and Asia.

While we have continued to expand our sales and marketing efforts in order to increase revenue, to date we have generated limited and unpredictable revenues to support our core therapeutic research and development efforts. Underpinning our research into the therapeutic properties of hpSC, we plan to expand our collection of parthenogenetic stem cell lines by creating and banking new clinical-grade hpSC lines at our Oceanside, California facility. We intend to create these new lines according to good tissue practices ("GTP") and current good manufacturing practices ("cGMP") and use them as sources for our own internal development programs and to generate revenue through licensing opportunities. We are actively working with a number of *in vitro* fertility ("IVF") clinics in the southern California region enrolling individuals who are willing to donate oocytes for research purposes in order to create new hpSC lines.

History

ISCO was incorporated in Delaware on June 7, 2005 under the name BTHC III, Inc. to effect the reincorporation of BTHC III, LLC, a Texas limited liability company, mandated by a plan of reorganization, through International Stem Cell Corporation, a California corporation ("ISC California"). The reincorporation was effected in December 2006 and ISC California became wholly-owned by ISCO.

In June 2006, LCT became wholly-owned by ISC California. Lifeline Skin Care, Inc. was formed in the State of California on June 5, 2009 and is a wholly-owned subsidiary of ISCO California.

Our principal executive offices are located at 5950 Priestly Drive, Carlsbad, CA 92008, and our telephone number is (760) 940-6383. Our corporate website address is www.internationalstemcell.com, Lifeline Cell Technology's website address is www.lifelinecelltech.com, and Lifeline Skin Care's website address is www.lifelineskincare.com. Our common stock is quoted on the OTC QB and trades under the symbol "ISCO".

Frequently Asked Questions

What are Stem Cells?

Cells are the basic living units that make up humans, animals, plants and other organisms. Stem cells have two important characteristics that distinguish them from other types of cells. First, they can renew themselves for long periods of time. Second, they are unspecialized and under certain conditions can be induced to become cells with special functions such as metabolically active cells of the liver or transparent and protective cells of the eye. Until recently, scientists have worked with two major kinds of stem cells, *embryonic stem cells* (hESCs) and *adult stem cells* that each has different properties and characteristics. ISCO has developed a third category of stem cells named *parthenogenetic stem cells* (the hpSCs mentioned above) that promise to have significant therapeutic advantages relative to these other types.

What are Pluripotent Stem Cells?

Pluripotent stem cells are able to be differentiated or developed into virtually any other cell made in an organism. Both embryonic and parthenogenetic stem cells are pluripotent. Some scientists are exploring manipulation of adult cells into a potentially pluripotent stage. This type of stem cells is called *induced pluripotent stem cells*.

What are Embryonic Stem Cells?

Embryonic stem cells are derived from embryos at an early stage of development, typically when they are in a structure of a small number of cells called the *blastocyst*. Embryonic stem cells are expanded in a laboratory cell culture process. Once cell lines are established, batches of them can be frozen and shipped to other laboratories for further culture and experimentation.

What are Adult Stem Cells?

An adult stem cell is an undifferentiated cell found among differentiated cells in a tissue or organ. An adult stem cell can renew itself (generally to a lesser degree than can embryonic or parthenogenetic stem cells) and differentiate to a limited number of specialized cell types. These cells can be isolated from different tissues such as the bone marrow, fat tissue, and umbilical cord blood.

Why are Embryonic Stem Cells Important?

Human embryonic stem cells are able to differentiate into virtually any other cell in the body and to reproduce themselves almost indefinitely. In theory, if stem cells can be grown and their development directed in culture, it would be possible to grow cells for the treatment of specific diseases.

An early potential application of human embryonic stem cell technology may be in drug screening and toxicology testing.

The study of human development may also benefit from embryonic stem cell research in that understanding the events that occur at the first stages of development has potential clinical significance for preventing or treating birth defects, infertility and pregnancy loss. The earliest stages of human development have been difficult or impossible to study. Human embryonic stem cells offer insights into developmental events that cannot be studied directly in humans or fully understood through the use of animal models.

What are Parthenogenetic Stem Cells and how are they different?

Parthenogenetic stem cells are pluripotent stem cells created from unfertilized human eggs through a “parthenogenesis” process. Parthenogenesis requires that an unfertilized human egg be “activated” by chemical, physical or other means. Activation results in a non-viable “parthenote” from which pluripotent parthenogenetic stem cell lines can be derived. The cell lines used by ISCO are human parthenogenetic stem cells. Currently International Stem Cell Corporation owns the largest published collection of human parthenogenetic stem cell

lines. Our research is based on perfecting proprietary techniques for deriving stem cells through parthenogenesis that result in stem cell lines that have the same capacity to become all cells found in the human body, but do not require use or destruction of a viable human embryo. Furthermore, parthenogenetic stem cells can be produced in a simplified ("homozygous") form that enables each line to be an immunological match for millions of people. We do not obtain stem cells from fetal tissue nor does our technology require the use of discarded frozen human embryos.

Why Not Use Stem Cells Derived from Adults?

There are several approaches now in human clinical trials that utilize adult stem cells. However, these cells have limited availability and limited ability to proliferate in culture as well as risk of genetic manipulation. Therefore, obtaining clinically significant amounts of adult stem cells may prove to be difficult.

Why is Stem Cell Research Controversial?

The sources of some types of stem cells cause social and religious controversy. For example, some scientists obtain stem cells from aborted fetal tissue, causing opposition from those opposed to abortion. Another controversial source of stem cells is residual human embryos (from fertilized human eggs) that remain after vitro fertilization procedures and are used to create embryonic stem cell lines.

Is Stem Cell Research Banned in the US?

Embryonic stem cell research, in general, is not banned in the US. Work by private organizations is not limited except by the restrictions applicable to all human research. In addition, Proposition 71 in California, which voters approved in November 2004, specifically allows state funds to be used for stem cell research.

Why Not Use the Currently "Approved" Embryonic Stem Cells Lines?

Most, if not all, human embryonic stem cell lines in research now have complex ("heterozygous") immune compositions that are likely to cause the differentiated cells to be rejected by most patients.

Why Not use Adult Cells Reprogrammed to become Pluripotent Cells?

Induced pluripotent cells ("iPSs") benefit from not being derived from human embryos but may face a number of other limitations such as uncertainty as to which genes are turned on and off. Furthermore, like embryonic stem cells, iPSs have complex ("heterozygous") immune compositions that are likely to cause the differentiated cells to be rejected by most patients.

Ethical Issues

The use of embryonic stem cells derived from fertilized human eggs has created an ethical debate in the US and around the world. However, since no fertilized human eggs are used in creating our stem cells and no human embryo is being created, used or destroyed, we expect that our parthenogenetic stem cells will be more readily accepted in circumstances where there are ethical concerns with using traditional embryonic stem cells.

We also have licensed worldwide rights to use a technology known as Somatic Cell Nuclear Transfer ("SCNT") to create human stem cells. The President's Council on Bioethics, as reported in the publication "Reproduction and Responsibility—The Regulation of New Biotechnologies 2004," has agreed on a series of recommendations for the use of such technology. Countries such as the United Kingdom have made similar recommendations.

Our Technology

We have developed a proprietary process based on parthenogenesis for the creation of a new type of stem cell that has shown to exhibit the pluripotency and proliferative benefits of embryonic stem cells yet avoid the use or destruction of fertilized human eggs or embryos. Furthermore, since parthenogenetic stem cells can be created with immunogenetically identical ("homozygous") chromosome pairs, each line has potential to be an immune match for tens of millions of patients. If such cells were to be differentiated into functional mature cells they would, theoretically, be universally applicable across a wide range of medical conditions.

We also hold licenses to three other technologies to create human pluripotent stem cells: SCNT technology (as mentioned previously); a technology that may be useful to create induced pluripotent stem cells ("iPS"); and "single blastomere technology" which uses a single cell obtained from a fertilized blastocyst to create an embryonic stem cell line. Each of these technologies has unique cell therapy applications and provides us with a broad base of technologies from which we can operate in the future.

Our Facilities

We have built the capacity to manufacture human cells for use in pre-clinical and clinical trials and ultimately for therapeutic use through the completion of our cGMP manufacturing laboratories in Oceanside, California and Frederick, Maryland, which is currently cGMP ready. The Oceanside laboratory is unique and designed specifically for the derivation of clinical-grade parthenogenetic stem cell lines for our stem cell bank and their differentiated derivatives for future clinical trials.

Our Products

Therapeutic Product Candidates

We are developing different cell types from our stem cells that may result in therapeutic products. We focus on applications where cell and tissue therapy is already proven but where there is an insufficient supply of functional cells or tissue. We believe that the most promising potential clinical applications of our technology are:

- Neuronal cells for treatment of Parkinson's disease and potentially other neurological disorders, such as traumatic brain injury, stroke and Alzheimer's disease.
- Liver cells ("hepatocytes") that may be used to treat a variety of congenital and acquired liver diseases. Using the same precursor cell that leads to liver cells, it is also possible to create islet cells for potential treatment of diabetes.
- Retinal cells and three-dimensional eye structures including corneal cells and tissue to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

We have completed our IND-enabling pre-clinical studies on our most advanced program, the development of neural stem cells for the treatment of Parkinson's disease, and filed the regulatory submission to the Australian Therapeutics Goods Administration ("TGA") to start a phase 1/2a clinical trial in Australia. Each of these product candidates will require extensive pre-clinical and clinical development and may require specific unforeseen licensing rights obtained at substantial cost before regulatory approval may be achieved and the products sold for therapeutic use.

Skin Care Products

ISCO's LSC subsidiary has developed three skincare products containing our proprietary stem cell extract that help combat the signs of aging. Daytime Defense Complex is designed to facilitate quicker cell turnover and restore skin's natural moisture levels. Recovery Night Moisture Serum helps reduce the appearance of fine lines and wrinkles, increases skin firmness, and contributes to skin cell regeneration. Eye Firming Complex provides tightening benefits and reduces puffiness, while delivering hydration to soften lines and wrinkles. LSC has also

developed two skin cleansing and exfoliating products that are intended to complement the active ingredients in the night, day, and eye serums. Brightening Cleanser uses ultra-fine conditioning powders to help cleanse and brighten the skin. Dual Action Exfoliator uses glycolic acid and microcrystals to exfoliate dead skin cells and promote faster cell renewal.

Research Products

ISCO's LCT subsidiary develops, manufactures and commercializes over 160 human cell culture products. These products include frozen human "primary" cells and stem cells and the reagents (called "media") needed to grow, maintain and differentiate the cells. LCT's scientists have used a technology called basal medium optimization to systematically produce optimized products designed to culture specific human cell types and to elicit specific cellular behaviors. These techniques also produce products that do not contain non-human animal proteins, a feature desirable to research and therapeutic markets. LCT frequently adds more products to its line. These human cell-based products are used domestically and internationally by research scientists in pharmaceutical, academic and government research organizations to study human disease and basic cell biology. LCT's products eliminate the need for scientists to create their own cells, media and reagents or attempt to adapt "off the shelf" products to match specific experimental needs and they are superior to using animals or non-human animal cells as research tools because they are more relevant to the study of human disease. Strict quality assurance provides a high level of consistency and standardization of these products. LCT offers products that contain no animal products ("called "Xeno-free" products), allowing researchers to have better control of their experiments and to conduct research using products that ultimately can be more appropriate for therapeutic applications.

Often LCT's research customers use our cell-based research products in their clinical research, eventually adapting them for therapeutic applications. If one of our research products is adopted by a successful producer of therapeutic cells, ISCO may become a supplier to the much larger therapeutic market through LCT's products. This is based on the fact that once regulatory product submissions are made to the FDA and similar authorities, the media and reagents used during development cannot be changed easily after approval. These uses of LCT's products bring opportunities to ISCO for future therapeutic products. Such is the case with LCT's Fibrolife ® media, which CytoGraft (Novato, CA) is using as part of the process of creating its tissue engineered vascular grafts.

LCT products and applications include:

- Human skin cells and associated reagents (DermaLife ®) for the study of skin disease, toxicology or wound healing.
- Human cells from the heart and blood vessels and associated reagents (VascuLife ®), used by researchers to study cardiovascular disease and cancer.
- Human bronchial and tracheal cell lines for the study of toxicity, cystic fibrosis, asthma and pathogenesis.
- Human mammary epithelial cell lines for the study of breast cancer, three dimensional culture and carcinogen screening.
- Adult stem cells (called mesenchymal stem cells) and the reagents necessary to differentiate them into various tissues, including bone, cartilage and fat. These products are valuable for researchers in the emerging field of regenerative medicine.
- Human prostate cells and specialized medium (ProstaLife™) to study prostate disease including cancer.
- Human renal and bladder cells and associated media (RenaLife™) to study renal and bladder diseases.
- Human corneal cells and associated media (OccuLife™) for the study of corneal disease and as a model of toxicology for consumer product testing.

- An assortment of many other cell culture reagents and supplements for the growth, staining and freezing of human cells.

Each LCT cell product is quality tested for the expression of specific markers (to assure the cells are the correct type), proliferation rate, viability, morphology and absence of pathogens. Each cell system also contains associated donor information and all informed consent requirements are strictly followed.

LCT's research products are marketed and sold by its internal sales force, OEM partners and LCT brand distributors in Europe and Asia.

Our Markets

Therapeutic Markets

ISCO is currently pursuing a number of scientific development programs designed to lead to the creation of new therapeutic products. We anticipate that, with their superior immune-matching characteristics, our cells will be able to reduce or eliminate the need for immune-suppression drugs and the adverse reactions they trigger in patients.

Parkinson's disease. Parkinson's disease ("PD") is the second most common neurodegenerative disease and, according to the Parkinson's Disease Foundation, there are more than one million sufferers in the United States and more than $2 billion is spent on medication. Currently there is no cure for PD and the improvements in symptoms provided by PD drugs often diminish with time. Using our proprietary technologies and know-how, we are creating neural stem cells from hpSCs as a potential treatment of PD and potentially other central nervous system disorders in order to address this significant market opportunity.

Liver disease. Liver disease affects one in ten persons according to the American Liver Foundation, and is one of the top ten leading causes of death in the United States. There are more than 100 individual diseases of the liver; and for people with liver failure, the only effective treatment is full or partial organ transplantation. However, the demand for liver organs far exceeds the number available. According to the American Liver Foundation, over 16,000 individuals in the United States are waiting for a transplant. Using our proprietary technologies and know-how, we are creating liver cells from hpSCs that may be used to treat a variety of hepatic and metabolic liver diseases to address this significant market opportunity. Importantly, liver cell transplantation has already been used in early stage clinical trials to treat patients with liver failure and has proven especially useful as a "bridge" to keep patients alive until they can receive a whole liver transplant.

Corneal disease. Corneal blindness currently affects between seven and eight million people worldwide according to the World Health Organization. Using our proprietary technologies and know-how, we are creating corneal-like structures from hpSCs. These clear hollow spheres are composed of tissue with a three-dimensional layered structure similar to what is found in normal corneal tissue. Portions or all of these tissue layers may be suitable for cornea transplantation in humans. In addition, corneal cells can be used for coating contact lenses to accelerate corneal healing.

Retinal diseases. Diseases involving retinal degeneration include age-related macular degeneration ("AMD") and retinitis pigmentosa ("RP"). These diseases are characterized by the death of critical photoreceptor cells called rods and cones. Photoreceptor death is due to an abnormality and/or to disruption or death of supportive cells called retinal pigment epithelial ("RPE") cells. According to the Center for Disease Control and Prevention, approximately 1.8 million Americans aged 40 and over are affected by AMD.

Skin Care Market

Skin care products play a key role in the daily healthcare routines of many consumers. Greater emphasis on advertising, broader and more integrated distribution networks, raising standards of living in emerging markets, and population aging trends in developed nations are the major factors driving the global demand for skin care products.

Global skin care market consists of (i) facial care products; (ii) body care products; and (iii) specialty needs products. Top selling products in the facial skincare category include skin brighteners, anti-aging creams and serums, toners, masks, anti-acne and sun protection products.

Facial skincare products that provide anti-aging benefits represent a significant portion of the global skincare market. Increased longevity leads consumers to seek out high quality, technologically advanced skincare products that can help them maintain a youthful appearance. Anti-aging products that are backed by scientific research remain in high demand among sophisticated consumers despite premium prices.

In response to consumer demand for superior quality skin care products, manufacturers are striving to innovate at all levels of the skincare market. Increasing emphasis is placed on discovery and testing of specialty compounds and technologies that provide a demonstrable cosmetic effect. Biotechnology-based skincare products are gaining increasingly higher market share as consumers discover their potential to deliver safe and effective results.

Research Market

The research market for cell systems consists of scientists performing basic and applied research in the biological sciences. Basic research involves the study of cell biology and biochemical pathways. Applied research involves drug discovery, vaccine development, clinical research and cell transplantation. The domestic market can be broken into three segments: (i) academic researchers in universities and privately-funded research organizations; (ii) government institutions such as the National Institutes of Health, the US Army, the US Environmental Protection Agency and others; and (iii) industrial organizations such as pharmaceutical companies and consumer product companies. We believe the following are the main drivers in the research market for commercial cell systems:

- The need for experimental human cells which are more predictive of human biology than are non-human cells or genetically-modified cell lines or living non-human animals.
- The emerging field of stem-cell-based regenerative medicine and the increase in associated grant money to study stem cells is driving the market not only for stem cell products but also for cell culture products in general.
- The desire to lower the cost of drug development in the pharmaceutical industry. We believe that human cell systems may provide a platform for screening toxic drugs early in the development process, thus avoiding late stage failures in clinical trials and reducing costs.
- The need to eliminate animal products in research reagents that may contaminate future therapeutic products.
- The need for experimental control. Serum-free defined media provides the benefit of experimental control because there are fewer undefined components.
- The need for consistency in experiments that can be given by quality controlled products.
- The need to eliminate in-house formulation of media, obtain human tissue or perform cell isolation.
- The need to reduce animal testing in the consumer products industry.

Intellectual Property

Patents

In 2015 we were granted eight patents covering different aspects and applications of our proprietary parthenogenetic technology. The first patent, covering the creation of parthenogenetic stem cell lines, was issued in Great Britain. The second and third patents, both covering parthenogenetic activation of human oocytes, were

issued in Japan and Korea. The fourth patent, covering various aspects of design and construction for our proprietary cell culture medium container, was issued in the United States. The fifth patent, covering various aspects of synthetic cornea creation, was issued in Great Britain. Sixth, seventh, and eighth patent, all covering differentiation of cells from stem cells, were issued in Israel, Japan, and the United States.

We have pending patents covering homozygous parthenogenetic stem cells that can be immune matched to millions of persons and methods for deriving them. Other patents and pending patent applications include intellectual property concerning skin care formulations and methods of manufacturing stem-cell based skin care products and methods to differentiate stem cells.

In addition, we have obtained exclusive worldwide licenses to patents and patent applications from Ocata Therapeutics (formerly Advanced Cell Technology). Our licensed and internally-generated patents provide the intellectual property rights we need to operate in the pluripotent stem cell field and to progress through the stages of creating a therapeutic stem cell product. These stages include the derivation, isolation, expansion and differentiation of stem cells. The intellectual property available to us enables us to create manufacturing methods that eliminate animal proteins in order to satisfy FDA requirements. In addition, we have rights to sell research products derived through our licensed intellectual property in order to generate income.

The majority of the patents and applications have been filed in the US and in foreign countries through the Patent Corporation Treaty or by direct country filings in those jurisdictions deemed significant to our operations. Our currently issued patents will expire at various times commencing in 2020.

We have protected our research products and branding through both patents and trademarks. Lifeline Skin Care has filed patent applications covering its proprietary formulations and methods of using stem cells to create skin care products. ISCO has registered trademarks on its company name, logo and various product names to protect its branding investment. Lifeline Cell Technology's products names have been protected through trademark registration and the reagent formulations are protected as trade secrets.

The patentability of human cells in countries throughout the world reflects widely differing governmental attitudes. In the US, hundreds of patents covering human embryonic stem cells have already been granted, including those on which we rely. Certain countries in Europe and Asia have taken the position that hES cells themselves are not patentable. ISCO believes that such restrictions are not appropriate as applied to parthenogenetic stem cells and is working with patent legislators in Europe to create exemptions for human parthenogenetic stem cells. As a result, we plan to file internationally wherever feasible and focus our research strategy on cells that best fit the US and foreign country definitions of patentable cells and technologies.

On December 18, 2014 the Court of Justice of the European Union (CJEU), the European Union's highest court ruled that the Company's core technology patent applications are not covered by the prohibition on patenting embryonic stem cells, removing the final barrier to the approval of ISCO's parthenogenetic stem cell patents in the European Union. This final and definitive ruling by the EU's highest court now formally separates parthenogenetic stem cells from embryonic stem cells, and removes the exclusion from patentability on the former while maintaining the ban on the later.

License Agreements

In May 2005, we entered into three exclusive license agreements ("ACT IP," "Infigen IP," and "UMass IP" or collectively "ACTC agreements") with Ocata Therapeutics Inc. for the production of therapeutic products in the fields of diabetes, liver disease, retinal disease and the creation of research products in all fields. In February 2013, each of these license agreements was amended and restated, pursuant to which we continue to have rights to Ocata Therapeutics' human cell patent portfolio and non-exclusive rights to future developments in the area of diabetes and liver disease, as well as certain rights to patents covering Single Blastomere technology. A significant feature of the licensed Single Blastomere technology is a method of ethically obtaining human embryonic stem cells that allows us to isolate and differentiate hES stem cells directly from a "blastocyst"

without harming the embryo. Using other licensed technology, the hES cells can be immediately differentiated into stem cells capable of expansion and differentiation into other types of cells. Under the terms of the amendments we have also acquired additional exclusive rights in the area of parthenogenesis and the use of parthenogenetically derived stem cells for treatment of human diseases.

The agreements with Ocata Therapeutics further provide that we are no longer obligated to make milestone payments or to meet any minimum research and development requirements. We will no longer pay any royalties related to the ACT IP or Infigen IP, and our obligation to pay a minimum license fee for the UMass IP has been reduced to $75,000 annually, payable in two installments to Ocata Therapeutics.

The agreements continue until the expiration of the last valid claim within the licensed patent rights. Either party to each amended and restated license agreement may terminate the agreement for an uncured breach or we may terminate the agreements at any time with a 30 days written notice.

Research Agreements

Our scientific founder, Elena Revazova, MD, PhD, conducted basic research at the Scientific Center for Obstetrics, Gynecology and Perinatology of the Russian Academy of Medical Sciences in Moscow, Russia. Through a research agreement, we have retained all intellectual property rights in the U.S. and other major markets with respect to such research, while the Institute has retained such rights in Russia.

In 2014 and 2013, ISCO spent $5.4 million and $3.6 million on research and development activities, respectively. ISCO actively pursues sponsored research agreements with local and international research organizations and has established research collaborations with collaborators from Duke University, Yale University, The Scripps Research Institute (La Jolla), and the Sanford Burnham Medical Research Institute. We are in frequent negotiations to develop collaborative research agreements with additional domestic and international research organizations from both the public and private sector. These agreements allow us to team up with nationally and internationally known research scientists to study stem cell technologies developed or licensed by ISC for possible use in therapeutic or research fields. In addition to the research collaborations mentioned above, we provide our stem cell lines to researchers at many universities and other research facilities. Ordinarily, the stem cell lines are provided without charge, but we retain the right to either an exclusive or non-exclusive right to use any technology that may be developed that is necessary in order for us to make therapeutic products based on the research that uses our cells.

In 2014 the Company signed a research agreement with Rohto Pharmaceutical Co. Ltd, (“Rohto”) the second-largest consumer health company in Japan, and a world leader in the manufacturing and marketing of pharmaceuticals, cosmetics, skincare and healthcare products. Under the terms of the agreement, Rohto will evaluate stem cell-derived human cells owned and provided by ISCO in a number of pre-clinical animal models. If the research is successful and the parties agree on remaining terms, it is anticipated that a definitive license agreement will be signed at the end of the twelve-month period of the research agreement.

Competition

The development of therapeutic and diagnostic agents for human disease is intensely competitive. Pharmaceutical companies currently offer a number of pharmaceutical products to treat Parkinson’s disease, diabetes, liver diseases, retinal disease, corneal disease and other diseases for which our technologies may be applicable. Many pharmaceutical and biotechnology companies are investigating new drugs and therapeutic approaches for the same purposes, which may achieve new efficacy profiles, extend the therapeutic window for such products, alter the prognosis of these diseases, or prevent their onset. We believe that our therapeutic products, when and if successfully developed, will compete with these products principally on the basis of improved and extended efficacy and safety and their overall economic benefit to the health care system. We believe that our most significant competitors will be fully integrated pharmaceutical companies and more established biotechnology companies. Smaller companies may also be significant competitors, particularly through collaborative arrangements with large pharmaceutical or biotechnology companies.

Some of our primary competitors in the development of stem cell therapies are Stem Cells Inc., Ocata Therapeutics Inc., BioTime, Neuralstem, Inc., ReNeuron, and ViaCyte. Our primary competitors in the skin care market are Obagi, Skinceuticals, SkinMedica, and Murad. In the field of research products, our primary competitors for human cells, media and reagents are Lonza, EMD Millipore, Life Technologies (formerly Invitrogen), StemCell Technologies, Zen-bio, PromoCell, and Specialty Media. In each of these areas many of our competitors have substantially greater resources and experience than we do.

Sales and Marketing

To date, sales of our research products have been derived primarily through our in-house sales force and via OEM and distribution contracts. Approximately 21% of our sales in 2014 were from one customer.

The skin care line was launched in November 2010 through the company's own website – www.lifelineskincare.com. Since that time distribution has expanded to include destination and resort spas, dermatologists, plastic surgeons and international markets. Domestically, we plan to increase distribution of our products by increasing brand awareness, strategic partnerships, sales promotions, and public relations. Internationally, we are increasing distribution and sales through new distribution and custom product development agreements.

LCT's research products are marketed and sold by its internal sales force, OEM partners and LCT brand distributors in Europe and Asia.

Government Regulation

Regulation by governmental authorities in the U.S. and other countries is a significant factor in development, manufacture and marketing of our proposed therapeutic and skin care products and in our ongoing research and product development activities. The nature and extent to which such regulation applies to us will vary depending on the nature of any products that may be developed by us. We anticipate that many, if not all, of our proposed therapeutic products will require regulatory approval by governmental agencies prior to commercialization. In particular, human therapeutic products are subject to rigorous pre-clinical and clinical testing and other approval procedures of the FDA, and similar regulatory authorities in European and other countries. Various governmental statutes and regulations also govern or influence testing, manufacturing, safety, labeling, storage and recordkeeping related to such products and their marketing. The process of obtaining these approvals and the subsequent compliance with appropriate statutes and regulations require the expenditure of substantial time and money, and there can be no guarantee that approvals will be granted.

We have made extensive progress in obtaining the necessary regulatory approvals of research protocols, informed consent documents and donor protection procedures to obtain oocytes in the U.S. for the production of our parthenogenetic stem cell bank. These approvals include: federally mandated Institutional Review Board (IRB) and State of California required Stem Cell Research Oversight (SCRO) committee.

Currently the U.S. government, though NIH appropriations restrictions, prohibits the use of federal funds in research involving parthenogenetic stem cells. Since we cannot receive federal funds for our stem cell research, we have decided to work with various foundations who are involved with stem cell research.

FDA Approval Process

Prior to commencement of clinical studies involving humans, pre-clinical testing of new pharmaceutical products is generally conducted on animals in the laboratory to evaluate the potential efficacy and safety of the product candidate. The results of these studies are submitted to the FDA as a part of an Investigational New Drug ("IND") application, which must become effective before clinical testing in humans can begin. Typically, human clinical evaluation involves a time-consuming and costly three-phase process. In Phase I, clinical trials are conducted with a small number of people to establish safety pattern of drug distribution and metabolism within the body. In Phase II, clinical trials are conducted with groups of patients afflicted with a specific disease in order

to determine preliminary efficacy, possible dosages and expanded evidence of safety. In some cases, an initial trial is conducted in diseased patients to assess both preliminary efficacy and preliminary safety and patterns of drug metabolism and distribution, in which case it is referred to as a Phase I/II trial. In Phase III, large-scale, multi-center, comparative trials are conducted with patients afflicted with a target disease in order to provide enough data to demonstrate the efficacy and safety required by the FDA. The FDA closely monitors the progress of each of the three phases of clinical testing; and may, at its discretion, re-evaluate, alter, suspend or terminate the testing based upon the data which have been accumulated to that point and its assessment of the risk/benefit ratio to the patient. Monitoring of all aspects of the study to minimize risks is a continuing process. All adverse events must be reported to the FDA.

The results of the pre-clinical and clinical testing on a non-biologic drug and certain diagnostic drugs are submitted to the FDA in the form of a New Drug Application ("NDA") for approval prior to commencement of commercial sales. In the case of vaccines or gene and cell therapies, the results of clinical trials are submitted as a Biologics License Application ("BLA"). In responding to a NDA or BLA, the FDA may grant marketing approval, request additional information or refuse to approve if the FDA determines that the application does not satisfy its regulatory approval criteria. There can be no assurance that approvals will be granted on a timely basis, if at all, for any of our proposed products.

In November 2014, in an important ruling the FDA cleared ISCO's human parthenogenetic stem cells line for investigational clinical use. This was a necessary step in the process of eventually advancing stem cell therapies based on ISCO's core technology into clinical development. Although the Phase I trial for the Parkinson's Disease program is anticipated to be conducted in Australia, and therefore not subject to FDA oversight, future studies will be carried out in the United States where this approval is necessary.

European and Other Regulatory Approval

Whether or not FDA approval has been obtained, approval of a product by comparable regulatory authorities in Europe and other countries will likely be necessary prior to commencement of marketing the product in such countries. The regulatory authorities in each country may impose their own requirements and may refuse to grant an approval, or may require additional data before granting it, even though the relevant product has been approved by the FDA or another authority. As with the FDA, the regulatory authorities in the European Union ("EU"), Australia and other developed countries have lengthy approval processes for pharmaceutical products. The process for gaining approval in particular countries varies, but generally follows a similar sequence to that described for FDA approval. In Europe, the European Committee for Proprietary Medicinal Products provides a mechanism for EU-member states to exchange information on all aspects of product licensing. The EU has established a European agency for the evaluation of medical products, with both a centralized community procedure and a decentralized procedure, the latter being based on the principle of licensing within one member country followed by mutual recognition by the other member countries.

In Australia, the approval process for commencing Phase 1 and 2 clinical trials resides with both Therapeutic Goods Administration (TGA) and the Human Research Ethics Committee, (HREC). Prior to commencing a clinical trial, a sponsor must submit to TGA a CTX application and must submit to the HREC a study protocol, an investigator brochure and a template informed consent for such clinical trial. The HREC approval process generally takes four to eight weeks.

Other Regulations

We are also subject to various U.S. federal, state, local and international laws, regulations and recommendations relating to the treatment of oocyte donors, the manufacturing environment under which human cells for therapy are derived, safe working conditions, laboratory and manufacturing practices and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents, used in connection with our research work. We cannot accurately predict the extent of government regulation which might result from future legislation or administrative action.

Other Regulations for Lifeline Skin Care

The Federal Food, Drug and Cosmetic Act ("FFDCA") and the Fair Packaging and Labeling Act ("FPLA") provide the regulatory framework for selling cosmetics. The FFDCA oversees the safety of cosmetics. The FPLA ensures that the labeling is not false or misleading and includes all relevant information in a prominent and conspicuous manner.

Safety and efficacy testing of the products is performed by independent third party testing organization.

Employees

In addition to our four executive officers, we utilize the services of 41 full-time staff members.

Properties

We have established our primary research facility in 8,215 square feet of leased office and laboratory space in Oceanside, California. Our lease for this facility expires in August 2016. The current base rent is $8,846 per month. The facility has leasehold improvements which include GMP (current Good manufacturing Practices) level clean rooms designed for the derivation of clinical-grade stem cells and their differentiated derivatives, research laboratories for our stem cell differentiation studies and segregated rooms for biohazard control and containment of human donor tissue. The GMP clean rooms and the associated quality systems provide a "pilot manufacturing laboratory" that we believe will be uniquely suited for the creation, culture and differentiation of parthenogenetic stem cells for early stage clinical trials. We believe that this facility is well suited to meet our research, development and pre-clinical and clinical therapeutic production needs. However, we will need larger GMP manufacturing laboratories should any one of our therapeutic cells move to larger clinical trials or full-scale therapeutic manufacture. The monthly base rent will increase by 3% annually on the anniversary date of the agreement.

In addition to the primary research facility lease, we entered into a lease with S Real Estate Holding LLC to allow the Company to expand into new corporate offices located in Carlsbad, California. The new building is used for administrative purposes, but could also be used for research and development purposes if such space is needed in the future. The lease initially covered approximately 4,653 square feet, starting on March 1, 2011 and was amended to cover approximately 8,199 square feet effective July 1, 2011. The lease expires on February 29, 2016, subject to the Company's right to extend the term for up to five additional years. The Company began paying rent at an initial rate of $5,118 per month and the rate was amended effective July 1, 2011 and January 1, 2013 to account for additional square footage occupied by the Company. The current base rent is $11,837 per month. The monthly base rent will increase by 3% annually on the anniversary date of the agreement. The Company is also obligated to pay a portion of the utilities for the building and increases in property tax and insurance.

We lease a 5,520 square foot manufacturing facility in Frederick, Maryland, which we use for laboratory and administrative purposes. The current base rent is $8,865. The initial term of the lease expires in December 2015 and there is an option for an additional five years. The laboratory is being used to develop and manufacture our research products and the administration facility will be used for sales and marketing and general administration purposes. Our manufacturing laboratory space has clean rooms and is fitted with the necessary water purification, refrigeration, labeling equipment and standard manufacturing equipment to manufacture, package, store, and distribute media products. There is also a quality control and cell culture laboratory outfitted with the necessary cell isolation equipment, incubators, microscopes and standard cell culture equipment necessary to isolate and culture cells and conduct quality control tests to produce superior cell culture products.

Legal Proceedings

We are not party to any material legal proceedings.

MANAGEMENT

Our executive officers and directors, as of November 25, 2015, are as follows:

Name	Principal Occupation	Age
Andrey Semechkin	Co-Chairman and Chief Executive Officer	56
Mahnaz Ebrahimi	Chief Financial Officer	58
Russell Kern	Chief Scientific Officer	30
Sofya Bakalova	Vice President, Legal Affairs & Operations	32
Donald A. Wright	Director	63
Charles J. Casamento	Director	70
Paul V. Maier	Director	68

Andrey Semechkin, Ph.D., Co-Chairman and CEO, has been a Director of the Company since December 2008. Dr. Semechkin is a specialist in system analysis, strategic planning and corporate management. He is a member of the Russian Academy of Sciences and has been Deputy Director of Institute of System Analysis since 2004. Professor Semechkin was awarded the Russian Government Award in Science and Technology in 2006 and has written several scientific books. He has over 20 years' experience creating and managing businesses across different industries and scientific sectors.

Mahnaz Ebrahimi, Chief Financial Officer, joined the Company in September 2015. Ms. Ebrahimi has over 25 years of experience in executive/senior level financial management, accounting and SEC reporting matters, having worked with numerous publicly traded and privately held biotechnology, life science, and technology. Prior to joining the Company, she has served as a consultant for the Company as well as for Flux Power Holdings, Polaris Pharmaceutical, and Ocera Therapeutics. From October 2010 through July 2012, she served as Director, Financial Planning and Analysis and Treasury at eBioscience, where she was instrumental in the successful merger with Affymatrix in June 2012.

Russell Kern, Ph.D, Chief Scientific Officer, became a Director in October 2008. Dr. Kern was trained in medical genetics, stem cell biology and international business administration, and holds an M.S. degree from Faculty of Fundamental Medicine of Moscow State University. He earned his Ph.D. degree in Physiology from Anokhin Research Institute of Normal Physiology, Russian Academy of Medical Sciences. Dr. Kern is a well-known speaker on stem cell biology, including the use of stem cells for neurology and skin regeneration. He has publications in the field of clinical and molecular biology, and is author of various patent applications. Dr. Russell Kern is the son of Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer. In September 2015, Dr. Ruslan Semechkin changed his name to Russell Kern. Other than in the annual and interim financial statements (which have not been revised or reissued), we have revised this prospectus to reflect that name change. References to Dr. Semechkin in the financial statements and references to Dr. Kern in the remainder of the prospectus are intended to refer to the same person.

Sofya Bakalova, Vice President, Legal Affairs & Operations, received her J.D. from the University of Miami School of Law and has experience in various aspects of corporate and biotechnology law, regulatory affairs, project management, and business operations. After joining the Company in March 2011, she has held a variety of business and legal roles, including in-house counsel, advisor to the CEO, and Vice Chairman of the Board of Directors for Lifeline Skin Care. Ms. Bakalova holds a Bachelor's degree in Economics from San Francisco State University and has worked in the banking and finance industries prior to beginning her legal career.

Directors

See the section entitled "Officers" above, for a description of the business experience and educational background of Andrey Semechkin and Russell Kern.

Donald A. Wright became a director in March 2007. Mr. Wright was previously the Chairman and Founder of Everett, Washington-based Confluence Capital Group Inc., which provided consulting services to institutional investors, debt holders and public and private companies. On January 1, 2010, Mr. Wright became Chief Executive Officer and President of ISIS, Inc. which provides various services under contract to various agencies of the US Government and armed services. From 1995 until 2006, Mr. Wright was Chief Executive Officer and President of Pacific Aerospace & Electronics, Inc., an engineering and manufacturing company that he helped to found and that designs, manufactures and sells components primarily for the aerospace, defense and transportation industries.

Charles J. Casamento has been a director since June 2010. Mr. Casamento is currently Executive Director and Principal of The Sage Group, a healthcare advisory group specializing in mergers, acquisitions, and partnerships between biotechnology companies and pharmaceutical companies. He was the president and CEO of Osteologix, Inc., a public biopharmaceutical company developing products for treating osteoporosis, from 2004 through 2007. From 1999 through 2004, he served as chairman of the Board, president and CEO of Questcor Pharmaceuticals, Inc. Mr. Casamento formerly served as RiboGene, Inc.'s president, CEO and chairman of the Board from 1993 through 1999 until it merged with Cypros to form Questcor. He was co-founder, president and CEO of Interneuron Pharmaceuticals, Inc. (Indevus), a biopharmaceutical company, from 1989 until 1993. Mr. Casamento has also held senior management positions at Genzyme Corporation, where he was senior vice president, pharmaceuticals and biochemicals; American Hospital Supply, where he was vice president of business development and strategic planning for the Critical Care Division; Johnson & Johnson, Hoffmann-LaRoche, Inc. and Sandoz Inc. Mr. Casamento also serves on the Boards of Directors of CORTEX Pharmaceuticals, SuperGen, Inc. and VIVUS, Inc. He holds a bachelor's degree in Pharmacy from Fordham University and an M.B.A. from Iona College and was originally licensed to practice pharmacy in the states of New York and New Jersey.

Paul V. Maier became a director in July 2007 and has over 20 years of experience as a senior executive in biotechnology and pharmaceutical companies. From November 2009 through June 2014, he served as Chief Financial Officer of Sequenom, Inc., a publicly held company serving the discovery, clinical research, and molecular diagnostics market. From February 2007 until November 2009, he served as an independent financial consultant. Previously, Mr. Maier was Senior Vice President and Chief Financial Officer of Ligand Pharmaceuticals, Inc., a commercial stage biopharmaceutical company, a position he held from 1992 to 2007. From 1990 to 1992, Mr. Maier served as Vice President, Finance of DFS West, a division of DFS Group, LP a private multinational retailer. From 1984 to 1990, Mr. Maier was employed by ICN Pharmaceuticals, a pharmaceutical and biotechnology research products company, where he held various executive positions in finance and general management in ICN as well as SPI Pharmaceuticals, a publicly held subsidiary. Mr. Maier currently serves on the Board of Directors of Apricus Biosciences, MabVax Therapeutics, Biological Dynamics, and Ritter Pharmaceuticals. Mr. Maier received an MBA from Harvard Business School and a BS from Pennsylvania State University.

Director Independence

The Board of Directors has determined that each of Mr. Maier, Mr. Wright and Mr. Casamento satisfy the independence requirements specified in the listing requirements of Nasdaq Marketplace Rules.

Compensation Committee Interlocks and Insider Participation

No member of our compensation committee is or has at any time during the past year been one of our officers or employees. None of our executive officers currently serves or in the past year has served as a member of the Board of directors or compensation committee of any entity that has one or more executive officers serving on our Board of Directors or compensation committee.

EXECUTIVE COMPENSATION

The following table sets forth information concerning the compensation earned by our most highly compensated executive officers during the fiscal years ended December 31, 2014, and 2013, who are sometimes referred to herein as our named executive officers.

2014 Summary Compensation Table

Name	Year	Salary(1)	Bonus(2)	Option Awards ($)(3)	All Other Comp	Total
Andrey Semechkin	2014	$ 246,077		$ 160,448		$ 406,525
	2013	$ 258,457		$ 23,035		$ 281,492
John Simon Craw(4)	2014	$ 220,000		$ 17,288		$ 237,288
	2013	$ 220,031		$ 17,332		$ 237,363
Russell Kern	2014	$ 196,923		$ 128,547		$ 325,470
	2013	$ 181,987		$ 16,176		$ 198,163

(1) Actual amounts paid.
(2) Performance-based bonuses are reported as Non-Equity Incentive Plan Compensation. Except as otherwise noted, amounts reported as bonus represent discretionary bonuses in addition to the amount (if any) earned under the annual compensation guidelines.
(3) Represents the grant date fair value in accordance with ASC 718. These amounts have been calculated in accordance with ASC 718 using the market price of our stock on the respective grant dates. The assumptions used with respect to the valuation of option grants are set forth in the notes in the Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2013.
(4) Mr. John Simon Craw concluded his service as an executive officer on June 5, 2015.

On November 10, 2014 we granted options as follows: Dr. Andrey Semechkin 400 shares, Dr. Craw 400 shares, and Dr. Russell Kern 400 shares at an exercise price of $15.90. These options expire on November 10, 2024. All of the shares in this grant were granted under the 2010 Equity Participation Plan. The options issued are subject to plan restrictions and will vest 25% at the one-year anniversary on November 10, 2014, and then 1/48th on each month commencing on December 10, 2015.

On May 8, 2014 we granted options as follows: Dr. Andrey Semechkin 8,334 shares, Dr. Craw 667 shares, and Dr. Russell Kern 6,667 shares at an exercise price of $23.25. These options expire on May 8, 2024. All of the shares in this grant were granted under the 2010 Equity Participation Plan. The options issued are subject to plan restrictions and will vest 25% at the one-year anniversary on May 8, 2014, and then 1/48th on each month commencing on June 8, 2015.

On April 9, 2013 we granted options as follows: Dr. Andrey Semechkin 667 shares, Dr. Craw 500 shares, and Dr. Russell Kern 467 shares at an exercise price of $40.50. These options expire on April 9, 2023. All of the shares in this grant were granted under the 2010 Equity Participation Plan. The options issued are subject to plan restrictions and will vest 25% at the one-year anniversary on April 9, 2014, and then 1/48th on each month commencing on May 9, 2014.

Fair Value Assumptions

The following table sets forth the assumptions used in 2014 and 2013 in the calculation of the option awards presented in our "Summary Compensation Table." For all periods presented, the fair value of share-based awards of options were estimated at the date of grant using the Black-Scholes valuation model.

	Year ended December 2014	Year ended December 2013
Significant assumptions (weighted-average):		
Risk-free interest rate at grant date	1.90%	1.02%
Expected stock price volatility	100.75%	116.53%
Expected dividend payout	0%	0%
Expected option life-years based on management's estimate	6.08 years	6.08 years

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table sets forth certain information with respect to the value of all unexercised options previously awarded to our named executive officers as of December 31, 2014:

Outstanding Equity Awards at December 31, 2014

		Equity Incentive Plan Awards			
Name	Year Option Granted	Number of Securities Underlying Unexercised Options	Number of Securities Underlying Unexercised Unearned Options	Option Exercise Price	Option Expiration Date
Andrey Semechkin					
	2009(1)	194	—	$ 73.50	2019
	2009(1)	8,400	—	$ 88.50	2019
	2011(2)	15,667	1,000	$289.50	2021
	2012(5)	3,100	1,900	$ 48.00	2022
	2013(7)	278	389	$ 40.50	2023
	2014(8)	—	8,334	$ 23.25	2024
	2014(9)	—	400	$ 15.90	2024
John Simon Craw					
	2010(1)	3,334	—	$237.00	2020
	2011(2)	1,880	120	$289.50	2021
	2011(3)	574	93	$165.00	2021
	2012(4)	374	160	$ 73.50	2022
	2012(6)	300	200	$ 57.00	2022
	2013(7)	209	291	$ 40.50	2023
	2014(8)	—	667	$ 23.25	2024
	2014(9)	—	400	$ 15.90	2024
Russell Kern					
	2008(1)	334	—	$ 33.00	2018
	2009(1)	1,667	—	$ 88.50	2019
	2011(2)	3,134	200	$289.50	2021
	2012(4)	467	200	$ 73.50	2022
	2012(6)	300	200	$ 57.00	2022
	2013(7)	195	272	$ 40.50	2023
	2014(8)	—	6,667	$ 23.25	2024
	2014(9)	—	400	$ 15.90	2024

(1) There were no unvested stock awards as of December 31, 2014.
(2) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on February 13, 2011.
(3) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on June 3, 2011.
(4) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on February 13, 2012.
(5) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on June 28, 2012.
(6) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on July 22, 2012.
(7) The stock option will vest 25% at the one year anniversary on April 9, 2014, and then 1/48th on each month commencing on May 9, 2014.
(8) The stock option will vest 25% at the one year anniversary on May 8, 2015, and then 1/48th on each month commencing on June 8, 2015.
(9) The stock option will vest 25% at the one year anniversary on November 10, 2015, and then 1/48th on each month commencing on December 10, 2015.

2006 Equity Participation Plan

The 2006 Equity Participation Plan (also referred to as "2006 Stock Plan") provides for the grant of stock options or restricted stock and other equity based awards to our employees, officers, directors and consultants. Options may be either "incentive stock options" or non-qualified options under the federal tax laws and will have an exercise price equal to at least fair market value as of the grant date. A total of 100,000 shares of common stock have been reserved for issuance under the 2006 Stock Plan, subject to adjustments for certain corporate transactions or events. The purpose of the 2006 Stock Plan is to enable us to offer non-employee directors, officers, other key employees and consultants of the Company and our subsidiaries and affiliates, equity-based incentives, thereby attracting, retaining and rewarding these participants and strengthening the mutuality of interests between these participants and our stockholders. The 2006 Stock Plan is administered by the Board of directors as a whole. The Board of directors has the power to determine the terms of any restricted stock or options granted under the 2006 Stock Plan. Grants under the 2006 Stock Plan are generally not transferable, and each stock option is generally exercisable during the lifetime of the optionee only and can only be exercised by such optionee.

Equity Awards Issued Outside the 2006 Equity Participation Plan

In 2009, options to purchase 68,384 shares were issued outside the 2006 Equity Participation Plan. These grants include 57,472 shares that were issued with an exercise price of $93 per share and 10,913 that were issued with an exercise price of $88.50 per share.

2010 Equity Participation Plan

The 2010 Equity Participation Plan (also referred to as "2010 Stock Plan") provides for the grant of stock options or restricted stock and other equity based awards to our employees, officers, directors and consultants. Options may be either "incentive stock options" or non-qualified options under the federal tax laws and will have an exercise price equal to at least fair market value as of the grant date. A total of 1,200,000 shares of common stock have been reserved for issuance under the 2010 Stock Plan, subject to adjustments for certain corporate transactions or events. The purpose of the 2010 Stock Plan is to enable us to offer non-employee directors, officers, other key employees and consultants of the Company and our subsidiaries and affiliates, equity-based incentives, thereby attracting, retaining and rewarding these participants and strengthening the mutuality of interests between these participants and our stockholders. The 2010 Stock Plan is administered by the Board of directors as a whole. The Board of directors has the power to determine the terms of any restricted stock or

options granted under the 2010 Stock Plan. Grants under the 2010 Stock Plan are generally not transferable, and each stock option is generally exercisable during the lifetime of the optionee only and can only be exercised by such optionee.

Stock Option Grants

The Board may grant options qualifying as incentive stock options under the Internal Revenue Code and nonqualified stock options. The term of an option will be fixed by the Board, but will not exceed ten years (or five years in the case of an incentive stock option granted to a person beneficially owning shares representing 10% or more of the total combined voting power of all classes of our stock, referred to as a 10% stockholder). The option price for any option will not be less than the fair market value of the common stock on the date of grant (or 110% of the fair market value in the case of an incentive stock option granted to a 10% stockholder). Generally, the fair market value will be the closing price of the common stock on the applicable trading market. Payment for shares purchased upon exercise of a stock option must be made in full at the time of purchase. Payment may be made (i) in cash; (ii) in a cash equivalent acceptable to the Board; (iii) by the transfer to us of shares owned by the participant for at least six months on the date of transfer; (iv) if the common stock is traded on an established securities market, the Board may approve payment of the exercise price by a broker-dealer or by the option holder with cash advanced by the broker-dealer if the exercise notice is accompanied by the option holder's written irrevocable instructions to deliver the common stock acquired upon exercise of the option to the broker-dealer; or (v) any other method acceptable to the Board and in compliance with applicable laws.

Restricted Stock

The Board is authorized to grant restricted stock. Restricted stock is a grant of shares of common stock which may not be sold or disposed of and which shall be subject to such risks of forfeiture and other restrictions as the Board may impose. Unless otherwise determined by the Board, the purchase price for any restricted stock grant will be not less than 85% of the fair market value of common stock on the date of grant or at the time the purchase is consummated (or 100% of the fair market value in the case of restricted stock granted to a 10% stockholder). Generally, the fair market value will be the closing price of the common stock on the applicable trading market. Payment for shares purchased pursuant to a restricted stock grant may be made in (i) cash at the time of purchase; (ii) at the discretion of the Board, according to a deferred payment or other similar arrangement with the participant; or (iii) in any other form of legal consideration that may be acceptable to the Board in its discretion. A participant granted restricted stock generally has all of the rights of a stockholder of the Company, unless otherwise determined by the Board.

Option Exercises and Stock Vested During Last Fiscal Year

There were no option exercises or stock vested by named executive officers during the fiscal year ended December 31, 2014.

2014 DIRECTOR COMPENSATION

The following table sets forth information concerning the compensation earned during the last fiscal year by each individual who served as a director at any time during the fiscal year, other than directors who are listed in the Summary Compensation Table (directors who are also employees do not receive any additional compensation for service on the Board):

Name(3)	Fees Earned or Paid in Cash(1)	Restricted Stock Awards(2)	Total
Donald A. Wright	$ 57,500	$ 58,358	$115,858
Paul V. Maier	$ 32,500	$ 54,483	$ 86,983
Charles J. Casamento	$ 32,500	$ 54,483	$ 86,983

(1) Mr. Wright, Mr. Maier, and Mr. Casamento were compensated for their service on the Board and for service on any committee of the Board at the annual rate of $32,500, while Mr. Wright receives an additional annual compensation of $25,000 for serving as the Co-Chairman of the Board.

(2) In March 2014, Mr. Wright, Mr. Maier, Mr. Casamento each received 1,084 shares of restricted stock, with one quarter vesting at the end of each fiscal quarter; 332 shares of restricted stock in September 2014 vesting at grant; 514 shares of restricted stock in December 2014 vesting at grant; and each received 267 shares of restricted stock granted on the date of the Annual Meeting in May 2014 (with Mr. Wright receiving an additional 167 restricted stock for his service as Co-Chairman) and vesting on the earlier of twelve months from the date of grant or the date of the 2015 Annual Meeting. The restricted stock award amount represents the grant date fair value of the Company's stock.

(3) As of December 31, 2014, Mr. Wright held 2,400 stock options and 4,311 shares of restricted stock; Mr. Maier held 1,734 stock options and 4,091 shares of restricted stock; Mr. Casamento held 1,000 stock options and 3,811 shares of restricted stock.

In May 2015, the Board revised the compensation program for non-employee directors. Currently, non-employee directors will receive (i) annual cash compensation of $32,500 (with Mr. Wright receiving an additional $25,000 per year for his service as Co-Chairman); (ii) an annual grant of 1,334 shares of Common Stock; such grant to be made in fully-vested shares at the next annual meeting (or, if earlier, upon a change-in-control); (iii) quarterly grants of stock effective on the last day of each quarter, with the number of shares of stock equal to $8,125 divided by the average closing price of the Common Stock of the Company over the five trading days preceding the date of grant.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Pursuant to our Code of Business Conduct and Ethics, our executive officers, directors, and principal stockholders, including their immediate family members and affiliates, are prohibited from entering into transactions which create, or would appear to create, a conflict of interest with us. Our Audit Committee is responsible for reviewing and approving related party transactions. Our Audit Committee shall approve only those agreements that, in light of known circumstances, are in, or are not inconsistent with, our best interests, as our Audit Committee determines in the good faith exercise of its discretion.

Except with respect to the transactions described below, since January 1, 2012, none of our directors or executive officers, nor any person who beneficially owns, directly or indirectly, shares carrying more than 10% of the voting rights attached to our outstanding shares, nor any of our promoters, nor any relative or spouse of any of the foregoing persons entered into a transaction or is party to a currently proposed transaction in which the amount involved exceeded the lesser of $120,000 or one percent of the average of our total assets at year end for the last two completed fiscal years. None of our directors or executive officers is indebted to us.

From time to time, various persons, including certain officers, directors, principal shareholders, and their affiliates, have advanced funds to Lifeline and/or ISC California for operating expenses. As of September 30, 2015, we had an outstanding related party note payable to Dr. Andrey Semechkin, our Co-Chairman and CEO, in the amount of $2,862,000. This note, which was issued on September 9, 2015, bears interest at the annual rate of one-half of a percent (0.50%) and is due on October 9, 2015. On October 9, 2015, we issued a new note with a maturity date of November 9, 2015 to Dr. Semechkin in return for Dr. Semechkin surrendering the note issued on September 9, 2015. On November 3, 2015, we issued a new note to Dr. Semechkin in return for Dr. Semechkin surrendering the note issued on October 9, 2015. The new note bears interest at the annual rate of one-half of a percent (0.50%) and is due on January 10, 2016.

We are parties to an operating lease for our corporate offices in Carlsbad, California with S Real Estate Holdings LLC. S Real Estate Holdings LLC is owned by Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors. During fiscal years 2014 and 2013, the Company recorded $139,000 in rent expense related to the facility lease arrangement with related parties.

As previously disclosed, on March 9, 2012, to obtain funding for working capital purposes, we entered into a Series G Preferred Stock Purchase Agreement with AR Partners, LLC to sell 5,000,000 shares of our Series G Preferred Stock ("Series G Preferred") at a price of $1.00 per Series G Preferred share, for a total purchase price of $5,000,000. AR Partners is an affiliate of Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer, and Dr. Russell Kern, our Chief Scientific Officer and director. The sale of the Series G Preferred was completed on March 9, 2012.

On January 22, 2013, to obtain funding for working capital purposes, we entered into a Securities Purchase Agreement with Dr. Andrey Semechkin and Dr. Simon Craw to sell a total of 67,500 shares of common stock at a price of $30.00 per share, for a total purchase price of $2,025,000. Dr. Andrey Semechkin is our Co-Chairman and Chief Executive Officer. Dr. Simon Craw was our Executive Vice President Business Development. The sale of the shares of common stock was completed on January 22, 2013. In connection with the sale of these shares we issued to each purchaser a warrant, exercisable for a period of 5 years, to purchase (at an exercise price of $30.00 per share) a number of shares of common stock equal to 50% of the shares purchased by that purchaser, for a total of 33,750 shares subject to the warrants.

On March 12, 2013, to obtain funding for working capital purposes, we entered into a Securities Purchase Agreement with certain investors, including Dr. Andrey Semechkin, to sell a total of 33,334 shares of common stock at a price of $30.00 per share, for a total purchase price of $1,000,000. Dr. Andrey Semechkin is our Co-Chairman and Chief Executive Officer and purchased $100,000 worth of common stock. Each of the other investors has had a long-standing relationship with us and has closely followed the Company. The sale of the

shares of common stock was completed on March 12, 2013. In connection with the sale of these shares we issued to each investor a warrant, exercisable for a period of 5 years, to purchase (at an exercise price of $30.00 per share) a number of shares of common stock equal to 50% of the shares purchased by that investor, for a total of 16,667 shares subject to the warrants.

On July 24, 2013, to obtain funding for working capital purposes, we entered into a Securities Purchase Agreement with certain investors, including Dr. Andrey Semechkin and Dr. Russell Kern, to sell a total of 20,000,000 Units, a Unit comprising a share of common stock and a Series A Warrant exercisable for a share of common stock at a price of $0.15 per Unit. In addition, the purchase price included a Series B Warrant exercisable for an additional Unit at an exercise price of $0.15 per Unit, subject to adjustment. Dr. Andrey Semechkin is our Co-Chairman and Chief Executive Officer and purchased $899,850 worth of Units, and Dr. Russell Kern, our Chief Scientific Officer and director and purchased $100,150 worth of Units. The Series A Warrants are exercisable for a period of 5 years; the Series B Warrants expired on October 24, 2013. During October 2013, Dr. Andrey Semechkin exercised $400,000 worth of Series B Warrants prior to expiration; and Dr. Russell Kern exercised $96,800 worth of Series B Warrants prior to expiration. The exercise price of the Series B Warrants was adjusted to $0.1452 per Unit under the terms of the agreement. Prior to the expiration of the Series B Warrants in October 2013, other holders exercised $1,957,360 worth of Series B Warrants.

On May 29, 2014, to obtain funding for working capital purposes, we entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, to sell a total of 22,223 shares of common stock at a price of $22.50 per share, for a total purchase price of $500,000.

On June 11, 2014, we entered into a series of warrant exchange agreements (the “Warrant Exchange Agreements”) with the holders of its Series A Warrants and Placement Agent Warrants that were issued by us pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, we agreed to issue a total of 297,772 shares of common stock (the “Exchange Shares”) to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 243,699 shares of common stock and the Placement Agent Warrants to purchase 4,445 shares of common stock and Series A Warrants. Dr. Andrey Semechkin and Dr. Russell Kern, the Company’s Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 67,255 shares of common stock for 80,706 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares. Upon settlement of the exchange transaction, there were no remaining Series A Warrants or Placement Agent Warrants outstanding.

On June 26, 2014, to obtain funding for working capital purposes, we entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, to sell a total of 36,667 shares of common stock at a price of $15.00 per share, for a total purchase price of $550,000.

On August 6, 2014 to obtain funding for working capital purposes, we entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, to sell a total of 40,000 shares of common stock at a price of $15.00 per share, for a total purchase price of $600,000.

From August 29, 2014 through October 10, 2014, we issued 800 shares of common stock to three executive officers of the Company, for an aggregate of $12,000.

On September 10, 2014 to obtain funding for working capital purposes, we entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, to sell a total of 29,630 shares of common stock at a price of $13.50 per share, for a total purchase price of $400,000.

On October 14, 2014, we closed a private placement of Series H-1 and Series H-2 preferred stock and warrants, convertible and exercisable, respectively, into shares of our common stock, for gross proceeds of $2,500,000. The investors in the Private Placement included institutional investors and Andrey and Russell Kern, our Chief Executive Officer and Co-Chairman and Chief Scientific Officer and Director, respectively. In this transaction we also issued Series A Warrants to purchase up to approximately 258,519 shares of common stock at a current exercise price of $8.64 per share with a term of five and 1/2 years, Series B Warrants to purchase up to approximately 258,519 shares of common stock at an initial exercise price of $9.67 per share with a term of six months and Series C Warrants to purchase up to approximately 258,519 shares of common stock at an initial exercise price of $9.67 per share with a term of twelve months.

On December 22, 2014, we issued 39,295 shares of common stock to Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer, upon his exercise of Series B Warrants at an exercise price of $8.64 per share for total proceeds of $339,506.

On February 23, 2015, we issued 12,409 shares of common stock to Dr. Russell Kern, the Company's Chief Scientific Officer and director, upon his exercise of Series B Warrants at an exercise price of $6.72 per share for total proceeds of $83,388.

On March 31, 2015, we issued 39,295 and 12,409 shares of common stock to Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer and Dr. Russell Kern, the Company's Chief Scientific Officer and director, respectively, upon their exercise of Series C Warrants at an exercise price of $6.72 per share for total proceeds of $347,448.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding the beneficial ownership of our common stock and our preferred stock as of September 30, 2015, by (i) each person who is known by us to beneficially own 5% or more of our common stock or 5% or more of our preferred stock, (ii) each of our directors and named executive officers, and (iii) all executive officers and directors as a group. In general, a person is deemed to be a "beneficial owner" of a security if that person has or shares the power to vote or direct the voting of such security, or the power to dispose or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities of which the person has the right to acquire beneficial ownership within 60 days. To the best of our knowledge, all persons named have sole voting and investment power with respect to such shares, except as otherwise noted.

Other than for matters adversely affecting the rights and preferences of the preferred stock, the shares of our preferred stock (other than shares of Series H-1 and Series H-2 preferred stock, which is non-voting) vote together with the shares of common stock on most matters, with the shares of preferred stock entitled to cast a number of votes equal to the number of shares of common stock into which the shares of preferred stock could be converted. As of September 30, 2015 there were a total of 5,300,543 shares of preferred stock outstanding that were convertible into a total of 3,053,910 shares of common stock. Dr. Andrey Semechkin and Dr. Russell Kern, either directly or through entities that they control, beneficially own a total of 5,000,543 shares of preferred stock, that could be converted into a total of 2,886,621 shares of common stock. As such, Dr. Andrey Semechkin and Dr. Russell Kern control approximately 94.0% of the voting power of the preferred stock. The shares of common stock issuable upon conversion of the preferred stock are reflected in the following table.

In computing the number of shares of Common Stock beneficially owned by a person and the percentage ownership of such person, shares of Common Stock subject to warrants or options held by that person that are currently exercisable or exercisable within 60 days of September 30, 2015 were deemed to be outstanding, and shares of preferred stock owned by such person and convertible into Common Stock were deemed to be converted into Common Stock. Such shares were not deemed to be outstanding, however, for the purpose of computing the percentage ownership of any other person.

Stock Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Name of Beneficial Owner	Actual Beneficial Ownership	Percent of Beneficial Ownership (1)
Andrey Semechkin (2)(3)(4)(5)(6)	3,532,714	68.42%
Mahnaz Ebrahimi (2)(3)	37,917	1.73%
Russell Kern (2)(3)(4)(5)(6)	3,532,714	68.42%
Paul Maier (2)(3)	11,308	*
Donald Wright (2)(3)	12,477	*
Charles Casamento (2)(3)	8,707	*
All Executive Officers and Directors as a Group (7 Persons)	3,604,645	69.22%
5% Holders		
X-Master, Inc. (4)	610,965	22.58%
AR Partners LLC (6)	209,993	8.91%

* less than 1%

(1) Based on 2,147,773 shares outstanding as of September 30, 2015, plus shares issuable under derivative securities which are exercisable within 60 days of September 30, 2015.

(2) The business address for each director and officer is 5950 Priestly Drive, Carlsbad, CA 92008.

(3) Includes shares issuable upon conversion of outstanding shares of preferred stock and warrants and options to purchase shares of our common stock exercisable within 60 days of September, 30, 2015 in the following amounts:

Dr. Andrey Semechkin, 3,015,738 shares; Ms. Ebrahimi, 37,917 shares; Dr. Russell Kern, 3,015,738 shares; Mr. Casamento, 1,002 shares; Mr. Maier, 1,736 shares; Mr. Wright, 2,404 shares; and All Executive Officers and Directors as a Group, 3,060,052 shares.

(4) The business address for X-Master, Inc. is 1 Overlook Drive, Unit 11, Amherst, New Hampshire 03031. X-Master Inc. is owned by Dr. Andrey Semechkin. Dr. Russell Kern is the President of X-Master, Inc. The shares held by X-Master are all issuable upon conversion of outstanding shares of preferred stock and are considered to be beneficially owned by each of Andrey Semechkin and Russell Kern.

(5) Pursuant to the applicable SEC rules, each of Dr. Andrey Semechkin and Dr. Russell Kern are considered to be the beneficial owner of shares held by the other.

(6) The business address for AR Partners LLC is 5950 Priestly Drive, Carlsbad, CA 92008. AR Partners LLC is owned by Dr. Andrey Semechkin and Dr. Russell Kern. Dr. Russell Kern is the General Manager of AR Partners LLC. The shares held by AR Partners are all issuable upon conversion of outstanding shares of preferred stock and are considered to be beneficially owned by each of Andrey Semechkin and Russell Kern.

DESCRIPTION OF SECURITIES

General

Our certificate of incorporation authorizes us to issue 740,000,000 shares of capital stock, $0.001 par value per share, of which 720,000,000 shares are designated common stock and 20,000,000 shares are designated preferred stock. As of September 30, 2015, there were issued and outstanding approximately 2,148,000 shares of common stock, warrants for which we have reserved 473,130 shares of common stock, 300,000 shares of Series B preferred stock, 43 shares of Series D preferred stock, 5,000,000 shares of Series G preferred stock, and 500 shares of Series H-2 preferred stock.

Common Stock

Voting Rights

Holders of our common stock are entitled to one vote per share. Subject to any voting rights granted to holders of any preferred stock, the affirmative vote of a majority of the shares present in person or by proxy and entitled to vote on the subject matter, other than the election of directors, will generally be required to approve matters voted on by our stockholders. Directors will be elected by plurality of the votes of the shares present in person or represented by a proxy at the meeting entitled to vote on the election of directors. Our certificate of incorporation does not provide for cumulative voting.

Dividends

Subject to the rights of holders of any outstanding preferred stock, the holders of outstanding shares of our common stock will share ratably on a per share basis in any dividends declared from time to time by our Board of Directors.

Other Rights

Subject to the rights of holders of any outstanding preferred stock, upon our liquidation, dissolution or winding up, we will distribute any assets legally available for distribution to our stockholders, ratably among the holders of our common stock outstanding at that time.

Preferred Stock

Our Board of directors, without stockholder approval, but subject to the rights of our outstanding preferred stock, may issue preferred stock in one or more series from time to time and fix or alter the designations, relative rights, priorities, preferences, qualifications, limitations and restrictions of the shares of each series, to the extent that those are not fixed in our certificate of incorporation. The rights, preferences, limitations and restrictions of different series of preferred stock may differ with respect to dividend rates, amounts payable on liquidation, voting rights, conversion rights, redemption provisions, sinking fund provisions and other matters. Our Board of directors may authorize the issuance of preferred stock that ranks senior to our common stock with respect to the payment of dividends and the distribution of assets on liquidation. In addition, our Board of directors can fix the limitations and restrictions, if any, upon the payment of dividends on our common stock to be effective while any shares of preferred stock are outstanding. We have outstanding shares of Series B, Series D, Series G and Series H-2 Preferred Stock.

Series B Preferred Stock

We have 300,000 shares of Series B preferred stock issued and outstanding. The Series B preferred stock is currently convertible into shares of common stock at the conversion ratio of 0.56 shares of common stock for each share of Series B preferred stock converted. The Series B preferred stock conversion rate is subject to anti-

dilution protection (subject to the exceptions) in the event we issue shares of stock at a price below $1.7933 per share, which is the resulting conversion price following the October 2014 financing transaction and subsequent price resets.

The Series B preferred stock has a priority (senior to the shares of common stock) on any sale or liquidation of the Company equal to the purchase price of the Series B preferred stock, plus a liquidation premium of 6% per year. If the Company elects to declare a dividend on common stock in any year, it must first pay to the Series B preferred stockholders a dividend equal to the amount of the dividend the Series B preferred stockholder would receive if the Series B preferred stock were converted just prior to the dividend declaration.

Each share of Series B preferred stock has the same voting rights as the number of shares of common stock into which it would be convertible on the record date.

Series D Preferred Stock

We have 43 shares of Series D preferred stock outstanding. These shares are held by (i) X-Master Inc., which is a related party and affiliated with our Chief Executive Officer and Co-Chairman of the Board of Directors Dr. Andrey Semechkin and Dr. Russell Kern, Chief Scientific Officer and a director and (ii) our Chief Executive Officer and Co-Chairman of the Board of Directors Dr. Andrey Semechkin.

The holders of Series D preferred stock are entitled to vote as a separate class to elect two members of our Board of Directors. The holders of Series D preferred stock must approve certain transactions and are entitled to vote with the common stock on other matters on an “as converted” basis. Historically, the Series D preferred stock earned cumulative dividends at a rate of 10% per annum through December 31, 2011 and 6% per annum effective January 1, 2012, payable 15 days after each quarter end.

On October 12, 2012, the Company and the holders of all of the outstanding shares of Series D and Series G preferred stock entered into a Waiver Agreement (the “Waiver Agreement”) pursuant to which such holders irrevocably waived their right to receive any and all accrued but unpaid dividends and interest thereon on or after September 30, 2012 on the Series D and Series G preferred stock. Under the Waiver Agreement, the holders of Series D preferred stock are restricted from transferring any shares of Series D preferred stock unless the transferee agrees to be bound by the Waiver Agreement.

The conversion rate of Series D preferred stock is protected by anti-dilution provisions in the event we issue shares of stock (or are deemed to issue shares of stock) at a price below $1.7933 per share, which is the resulting conversion price following the October 2014 financing transaction and subsequent price resets.

Series G Preferred Stock

We have 5,000,000 shares of Series G preferred stock outstanding. These shares are held by AR Partners, LLC, an affiliate of Dr. Andrey Semechkin, the Company’s Co-Chairman and Chief Executive Officer, and Dr. Russell Kern, Chief Scientific Officer and a director.

The Series G preferred stock was initially convertible into shares of common stock at $60.00 per share, resulting in conversion ratio of 0.0167 shares of common stock for every share of Series G preferred stock. The conversion price may be adjusted for stock splits and other combinations, dividends and distributions, recapitalizations and reclassifications, exchanges or substitutions and is subject to a weighted-average adjustment in the event of the issuance of additional shares of common stock below the conversion price. As a result of subsequent transactions, the current conversion price of the Series G preferred stock is $23.8103, and the conversion ratio is 0.042 shares of common stock for every share of Series G preferred stock.

The shares of Series G preferred stock have priority over the Series B preferred stock, and Common Stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series G preferred stock, but such payment may be made only after payment in full of the liquidation preferences payable to holders of any shares of Series D preferred stock then outstanding. Each share of Series G preferred stock has the same voting rights as the number of shares of Common Stock into which it would be convertible on the record date. As long as there are at least 1,000,000 shares of Series G preferred stock outstanding, the holders of Series G preferred stock have (i) the initial right to propose the nomination of two members of the Board, at least one of which nominees shall be subject to the approval of the Company's independent directors, for election by the stockholder's at the Company next annual meeting of stockholders, or, elected by the full Board of directors to fill a vacancy, as the case may be, and (ii) the right to approve any amendment to the certificate of incorporation, certificates of designation or bylaws, in manner adverse to the Series G preferred stock, alter the percentage of Board seats held by the Series G preferred stock directors or increase the authorized number of shares of Series G preferred stock. At least one of the two directors nominated by holders of the Series G preferred stock shares shall be independent based on the NASDAQ listing requirements. The holders of Series G preferred stock must approve certain matters and are entitled to vote with the Common Stock on an "as converted" basis on other matters.

From the date of issuance of the Series G preferred stock, cumulative dividends at the rate per annum of six percent (6%) of the purchase price per share accrued quarterly on such shares of Series G preferred stock. However, on October 12, 2012, the Company and the holders of all of the outstanding shares of Series D and Series G preferred stock entered into Waiver Agreement pursuant to which such holders irrevocably waived their right to receive any and all accrued but unpaid dividends and interest thereon on or after September 30, 2012 on the Series D and Series G preferred stock. Under the Waiver Agreement, the holders of Series G preferred stock are restricted from transferring any shares of Series G Preferred Stock unless the transferee agrees to be bound by the Waiver Agreement.

Series H-2 Preferred Stock

At September 30, 2015 we have a total of 500 shares of Series H-2 preferred stock outstanding. These shares are held by Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, and Dr. Russell Kern, Chief Scientific Officer and a director.

The Series H-2 preferred stock is convertible at any time into shares of Common Stock at a current conversion price of $1.7933 per share. The Series H-2 is non-voting, is only entitled to dividends in the event that dividends are paid on the Common Stock, and will not have any preferences over the Common Stock, except that the Series H-2 has preferential liquidation rights over the Common Stock.

Series I Preferred Stock

The following summary of certain terms and provisions of our Series I Convertible Preferred Stock, or Series I Preferred, offered in this offering is subject to, and qualified in its entirety by reference to, the terms and provisions set forth in our certificate of designation of preferences, rights and limitations of Series I Preferred.

Our board of directors has designated authorized shares of preferred stock as Series I Preferred Stock. The Series I Convertible Preferred Stock will rank on parity to our common stock.

Each share of the Series I Preferred is convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder at a conversion price equal to the stated value of the Series I Preferred. Holders of Series I Preferred will be prohibited from converting Series I Preferred into shares of our common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of

our common stock then issued and outstanding. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

In the event of our liquidation, dissolution or winding-up, holders of Series I Preferred will receive the same amount that a holder of common stock would receive if the Series I Preferred were fully converted into shares of our common stock at the conversion price (disregarding for such purposes any conversion limitations) which amounts shall be paid pari passu with all holders of common stock.

Shares of Series I Preferred will generally have no voting rights, except as required by law and except that the affirmative vote of the holders of a majority of the then outstanding shares of Series I Preferred is required to, (a) alter or change adversely the powers, preferences or rights given to the Series I Preferred, (b) amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders, or (c) increase the number of authorized shares of Series I Preferred.

Shares of Series I Preferred will not be entitled to receive any dividends, unless and until specifically declared by our Board of Directors. The holders of the Series I Preferred will participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

Transfer Agent

The transfer agent for our common stock is Securities Transfer Corporation. The transfer agent address is 2591 Dallas Parkway, Suite 102, Frisco, TX 75034.

DESCRIPTION OF WARRANTS

The material terms and provisions of the warrants being issued in this offering are summarized below. The following description is subject to, and qualified in its entirety by, the form of warrants, which will be filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of warrant.

The Series A warrants to be issued with each Unit will have an exercise price of $ per share (equal to the public offering price of the Class A Units) and will be exercisable from their date of issuance and at any time up to the date that is months after their original date of issuance. The Series B warrants to be issued with each Unit will have an exercise price of $ per share (equal to of the public offering price of the Class A Units) and will be exercisable from their date of issuance and at any time up to the date that is years after their original date of issuance.

Both the Series A warrants and the Series B warrants may not be exercised by the holder to the extent that the holder, together with its affiliates, would beneficially own, after such exercise more than 9.99% of the shares of common stock then outstanding.

The warrants are exercisable for cash or, solely in the absence of an effective registration statement or prospectus, by cashless exercise.

The exercise price of the warrants is subject to adjustment in the case of stock dividends or other distributions on shares of common stock or any other equity or equity equivalent securities payable in shares of common stock, stock splits, stock combinations, reclassifications or similar events affecting our common stock, and also, subject to limitations, upon any distribution of assets, including cash, stock or other property to our stockholders.

In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common shares are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding common shares, then following such event, the holders of the warrants will be entitled to receive upon exercise of the warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the warrants.

Prior to the exercise of any warrants to purchase common stock, holders of the warrants will not have any of the rights of holders of the common stock purchasable upon exercise, including voting rights, however, the holders of the warrants will have certain rights to participate in distributions or dividends paid on our common stock to the extent set forth in the warrants.

In addition, the warrants provide that if, at any time while such warrants are outstanding, we (1) consolidate or merge with or into another corporation, (2) sell all or substantially all of our assets or (3) are subject to or complete a tender or exchange offer pursuant to which holders of our common stock are permitted to tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (4) effect any reclassification, reorganization or recapitalization of our common stock or any compulsory share exchange pursuant to which our common stock is converted into or exchanged for other securities, cash or property, or (5) engage in one or more transactions with another party that results in that party acquiring more than 50% of our outstanding shares of common stock (each, a "Fundamental Transaction"), then the holder of such warrants shall have the right thereafter to receive, upon exercise of the warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental

Transaction, the holder of the number of warrant shares then issuable upon exercise of the warrant, and any additional consideration payable to holders of our common stock as part of the Fundamental Transaction. Any successor to us or surviving entity shall assume the obligations under the warrant.

The provisions of the Series A warrants and Series B warrants may be amended as a single class if we obtain the written consent of holders representing not less than a majority of shares of our common stock then exercisable under the Series A warrants and Series B warrants collectively (in which case such amendments shall be binding on all holders of the warrants). However, the number of shares of our common stock exercisable, the exercise price or the exercise period may not be amended without the written consent of the holder of each such warrant.

We do not plan on applying to list any of the warrants on any national securities exchange or any other nationally recognized trading system.

PLAN OF DISTRIBUTION

We are offering up to $ of Class A Units (consisting of one share of our common stock, a Series A warrant to purchase share of our common stock at an exercise price equal to the public offering price of the Class A Units ("Series A warrant"), and a Series B warrant to purchase of a share of our common stock at an exercise price equal to of the public offering price of the Class A Units ("Series B warrant")). The shares of common stock, Series A warrants and Series B warrants part of a Class A Unit are immediately separable and will be issued separately in this offering. We are also offering to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing Class A Units, to purchase Class B Units. Each Class B Unit will consist of one share of our Class I Convertible Preferred Stock, or the Series I Preferred, with a stated value of $0.001 per share and convertible into shares of our common stock at the public offering price of the Class A Units, together with the equivalent number of Series A warrants and Series B warrants as would have been issued to such purchaser if they had purchased Class A Units based on the public offering price. However, there is no minimum offering amount required as a condition to closing and we may sell significantly fewer shares of common stock and warrants in the offering. The offering will terminate on , 2015, unless the offering is fully subscribed before that date or we decide to terminate the offering prior to that date. Dr. Andrey Semechkin, our Co-Chairman and CEO, will purchase shares and warrants on the same terms as other investors by surrendering a promissory note issued by us in the principal amount of $2,862,000.

In determining the offering price of the common stock and the exercise price of the warrants, we will consider a number of factors including, but not limited to, the current market price of our common stock, trading prices of our common stock over time, the illiquidity and volatility of our common stock, our current financial condition and the prospects for our future cash flows and earnings, and market and economic conditions at the time of the offering. Once the offering price is determined, the offering price for the common stock and the exercise price of the warrants will remain fixed for the duration of the offering.

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

We have agreed to pay to the Placement Agent a placement agent fee equal to nine percent (9%) of the aggregate gross proceeds to us from the sale of the securities in the offering (including any proceeds from the exercise of the warrants issued in the offering which are exercised more than one year after closing of the offering, but excluding gross proceeds from any sales of securities to our employees or affiliates of the Semechkin family). In addition, we have agreed to reimburse the Placement Agent with (i) a non-accountable expense allowance equal to one percent (1%) of gross offering proceeds (excluding gross proceeds from any sales of securities to our employees or affiliates of the Semechkin family), subject to a minimum of $50,000 to reimburse the placement agent for its counsel fees, subject to a refund to us in compliance with FINRA Rule 5110(f)(2)(D)(i) if the offering does not close and (ii) up to $15,000 for roadshow expenses. We estimate total expenses of this offering, excluding the placement agent fees, will be approximately $. The following table shows the per share and total fees we will pay to the placement agent assuming the sale of all of the shares offered pursuant to this prospectus.

Per Class A Unit placement agent cash fees	$
Per Class B Unit placement agent cash fees	$
Total	$

In addition, we have agreed to issue warrants to the Placement Agent (the "**Placement Agent Warrants**") to purchase up to a number of shares of common stock equal to ten percent (10%) of the aggregate number of shares of common stock sold in this offering (excluding any shares of common stock issuable upon exercise of the warrants and excluding securities sold to our employees or to affiliates of the Semechkin family). The Placement Agent Warrants shall have the same terms as the warrants offered by this prospectus, except that the exercise price shall be 125% of the public offering price per unit, or an exercise price of $ per share, and the expiration date shall be years from the effective date of the registration statement of which this prospectus forms a part. Pursuant to FINRA Rule 5110(f)(2)(G)(vi), the Placement Agent Warrants will not have anti-dilution protection. Pursuant to FINRA Rule 5110(g)(1), neither the Placement Agent Warrants nor any shares of common stock issued upon exercise of the Placement Agent Warrants may be sold, transferred, assigned, pledged, or hypothecated, or be subject to any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of such securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security (i) by operation of law or by reason of reorganization, (ii) to any FINRA member firm participating in the offering and the officers and partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period, (iii) if the aggregate amount of our securities held by the holder of the Placement Agent Warrants or related person does not exceed 1% of the securities being offered, (iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund, or (v) the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period. The Placement Agent Warrants and the shares underlying the Placement Agent Warrants are registered under the registration statement of which this prospectus forms a part. Because there is no minimum offering amount required as a condition to closing, the actual total proceeds received by us and total offering commissions and warrants issuable to the Placement Agent, if any, are not presently determinable and may be substantially less than the maximum amount set forth above.

We have also agreed to pay Wainwright a tail fee equal to the cash and warrant compensation set forth above if, at any time within twelve (12) months of the termination of our engagement, we receive financing form any investor introduced to us by the placement agent.

The engagement agreement provides that we will indemnify the Placement Agent against specified liabilities, including liabilities under the Securities Act of 1933, as amended. The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the Placement Agent would be required to comply with the Securities Act and the Securities Exchange Act of 1934, as amended ("**Exchange Act**"), including without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by the Placement Agent acting as principal. Under these rules and regulations, the Placement Agent:

- may not engage in any stabilization activity in connection with our 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.

LEGAL MATTERS

The validity of the issuance of securities offered by this prospectus has been passed upon for us by DLA Piper LLP (US), San Diego, California. Ellenoff Grossman & Scholle LLP, New York, New York, is acting as counsel to the placement agent.

EXPERTS

The consolidated balance sheets of International Stem Cell Corporation and Subsidiaries as of December 31, 2014 and 2013, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' equity (deficit) and cash flows for the years then ended have been incorporated herein and in the registration statement in reliance upon the report of Mayer Hoffman McCann P.C., independent registered public accounting firm, and given upon the authority of said firm as expert in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. Copies of our reports, proxy statements and other information may be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials can also be obtained by mail at prescribed rates from the Public Reference Room of the SEC, 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding International Stem Cell Corporation and other issuers that file electronically with the SEC. The address of the SEC internet site is www.sec.gov. In addition, we make available on or through our Internet site copies of these reports as soon as reasonably practicable after we electronically file or furnish them to the SEC. Our Internet site can be found at www.internationalstemcell.com.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Financial Statements
International Stem Cell Corporation and Subsidiaries

Three and nine months ended September 30, 2015 and 2014 (unaudited)

Years Ended December 31, 2014 and 2013

Table of Contents

International Stem Cell Corporation and Subsidiaries
Condensed Consolidated Balance Sheets
(in thousands, except share data)

	September 30, 2015 (Unaudited)	December 31, 2014
Assets		
Cash and cash equivalents	$ 599	$ 1,111
Accounts receivable, net of allowance for doubtful accounts of $18 and $19 at September 30, 2015 and December 31, 2014, respectively	615	453
Inventory, net	1,874	1,517
Prepaid expenses and other current assets	505	485
Restricted cash	—	50
Total current assets	3,593	3,616
Property and equipment, net	459	714
Intangible assets, net	3,121	2,795
Deposits and other assets	57	54
Total assets	$ 7,230	$ 7,179
Liabilities and Stockholders' Equity		
Accounts payable	$ 526	$ 670
Accrued liabilities	1,373	1,711
Related party payable	2,893	11
Advances	250	250
Fair value of warrant liability	1,354	4,216
Total current liabilities	6,396	6,858
Commitments and contingencies		
Stockholders' Equity		
Series B Convertible Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding, with liquidation preferences of $435 and $421 at September 30, 2015 and December 31, 2014, respectively	—	—
Series D Convertible Preferred stock, $0.001 par value, 50 shares authorized, 43 issued and outstanding, with liquidation preference of $4,320	—	—
Series G Convertible Preferred stock, $0.001 par value, 5,000,000 shares authorized, issued and outstanding, with liquidation preference of $5,000	5	5

Series H-1 Convertible Preferred stock, $0.001 par value, 2,000 shares authorized, 0 and 1,482 issued and outstanding at September 30, 2015 and December 31, 2014, respectively	—	—
Series H-2 Convertible Preferred stock, $0.001 par value, 500 shares authorized, issued and outstanding	—	—
Common stock, $0.001 par value, 720,000,000 shares authorized, 2,147,773 and 1,596,195 shares issued and outstanding at September 30, 2015 and December 31, 2014, respectively(1)	2	2
Additional paid-in capital	96,679	95,063
Accumulated deficit	(95,852)	(94,749)
Total stockholders' equity	834	321
Total liabilities and stockholders' equity	$ 7,230	$ 7,179

(1) See Note 1, "Reverse Stock Split"

See accompanying notes to the unaudited condensed consolidated financial statements.

Table of Contents

International Stem Cell Corporation and Subsidiaries
Condensed Consolidated Statements of Operations
(in thousands, except per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Revenues				
Product sales	$ 2,136	$ 1,963	$ 5,573	$ 5,200
Total revenue	2,136	1,963	5,573	5,200
Expenses				
Cost of sales	565	518	1,499	1,366
Research and development	508	1,392	2,193	3,761
Selling and marketing	712	745	1,968	2,093
General and administrative	973	1,342	3,438	4,322
Total expenses	2,758	3,997	9,098	11,542
Loss from operating activities	(622)	(2,034)	(3,525)	(6,342)
Other income (expense)				
Change in fair value of warrant liability	87	—	2,468	1,894
Warrant exchange inducement expense	—	—	—	(3,445)
Miscellaneous	—	(8)	—	(8)
Interest expense	(4)	—	(7)	(2)
Warrant modification expense	—	—	(40)	—
Sublease income	—	8	1	24
Total other income (expense), net	83	—	2,422	(1,537)
Loss before income taxes	(539)	(2,034)	(1,103)	(7,879)
Provision for income taxes	—	—	—	—
Net loss	$ (539)	$ (2,034)	$(1,103)	$(7,879)
Net loss applicable to common stockholders	$ (539)	$ (2,034)	$(1,103)	$(7,879)
Net loss per common share-basic(1)	$ (0.27)	$ (1.40)	$ (0.61)	$ (6.53)

Net loss per common share-diluted(1)	$ (0.28)	$ (1.40)	$ (1.69)	$ (6.53)
Weighted average shares-basic(1)	1,962	1,456	1,801	1,207
Weighted average shares-diluted(1)	2,218	1,456	2,117	1,207

(1) See Note 1, "Reverse Stock Split"

See accompanying notes to the unaudited condensed consolidated financial statements.

Table of Contents

International Stem Cell Corporation and Subsidiaries
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)
For the Year Ended December 31, 2014 and the Nine months ended September 30, 2015
(in thousands)
(2015 Unaudited)

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock					
					Series B		Series D		Series G	
	Shares	Amount	Shares(1)	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Balance at December 31, 2013	5,000	$ 4,941	1,008	$ 1	300	$ —	—	$ —	—	$ —
Issuance of common stock										
For cash, net of issuance costs of $169			184	—						
For services			7	—						
From exercises of warrants			39	—						
For warrant exchange, net of issuance costs of $49			298	1						
Issuance of preferred stock										
Conversion of Series H-1 preferred stock			60	—						
Stock-based compensation										
Waiver of redemption feature for Series G preferred stock	(5,000)	(4,941)							5,000	5
Net loss for the period ended December 31, 2014										
Balance at December 31, 2014	—	—	1,596	2	300	—	—	—	5,000	5
Issuance of common stock										
For services			12	—						
From exercises of warrants			170	—						
For fractional shares rounding up due to reverse stock split			6	—						
Conversion of Series H-1 preferred stock			364	—						
Warrant modification										
Stock-based compensation										
Net loss for the period ended September 30, 2015										
Balance at September 30, 2015	—	$ —	2,148	$ 2	300	$ —	—	$ —	5,000	$ 5

(1) See Note 1, "Reverse Stock Split"

See accompanying notes to the unaudited condensed consolidated financial statements.

	Convertible Preferred Stock						
	Series H-1		Series H-2		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount			
Balance at December 31, 2013	—	$ —	—	$ —	$ 78,047	$ (82,271)	$ (4,223)
Issuance of common stock							
For cash, net of issuance costs of $169					3,600		3,600
For services					191		191
From exercises of warrants					444		444
For warrant exchange, net of issuance costs of $49					6,427		6,428
Issuance of preferred stock	2	—	—	—			—
Conversion of Series H-1 preferred stock	(1)	—			—		—
Stock-based compensation					1,418		1,418
Waiver of redemption feature for Series G preferred stock					4,936		4,941
Net loss for the period ended December 31, 2014						(12,478)	(12,478)
Balance at December 31, 2014	1	—	—	—	95,063	(94,749)	321
Issuance of common stock							
For services					80		80
From exercises of warrants					996		996
For fractional shares rounding up due to reverse stock split					—		—
Conversion of Series H-1 preferred stock	(1)	—			—		—
Warrant modification					40		40
Stock-based compensation					500		500
Net loss for the period ended September 30, 2015					—	(1,103)	(1,103)
Balance at September 30, 2015	—	$ —	—	$ —	$ 96,679	$ (95,852)	$ 834

(1) See Note 1, "Reverse Stock Split

See accompanying notes to the unaudited condensed consolidated financial statements.

Table of Contents

International Stem Cell Corporation and Subsidiaries
Condensed Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2015	2014
Cash flows from operating activities		
Net loss	$ (1,103)	$ (7,879)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	360	349
Stock-based compensation expense	500	1,212
Common stock issued for services	80	139
Change in fair value of warrant liability	(2,468)	(1,894)
Warrant exchange inducement expense	—	3,445
Warrant modification expense	40	—
Allowance for bad debt	(1)	—
Allowance for inventory obsolescence	(108)	30
Loss on disposal of fixed assets	—	8
Impairment of intangible assets	99	39
Changes in operating assets and liabilities		
(Increase) decrease in accounts receivable	(161)	(158)
(Increase) decrease in inventory	(249)	(194)
(Increase) decrease in prepaid assets and other assets	(20)	299
(Increase) decrease in restricted cash	50	—
(Increase) decrease in deposits	(3)	(24)
Increase (decrease) in accounts payable	(144)	184
Increase (decrease) in accrued liabilities	(338)	9
Increase (decrease) in deferred revenue	—	(3)
Increase (decrease) in related party payable	20	(16)
Net cash used in operating activities	(3,446)	(4,454)

Investing activities		
Purchases of property and equipment	(32)	(262)
Proceeds from sale of property and equipment	—	1
Payments for patent licenses and trademarks	(498)	(485)
Net cash used in investing activities	(530)	(746)
Financing activities		
Proceeds from a bridge loan from a related party	2,862	—
Proceeds from issuance of common stock	—	3,646
Proceeds from exercise of warrants	602	—
Payment of offering costs	—	(218)
Net cash provided by financing activities	3,464	3,428
Net decrease in cash and cash equivalents	(512)	(1,772)
Cash and cash equivalents, beginning of period	1,111	2,243
Cash and cash equivalents, end of period	$ 599	$ 471
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 2	$ 2
Warrant liability reclassified to equity upon warrant exchange	—	$ 3,031

See accompanying notes to the unaudited condensed consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Significant Accounting Policies

Business Combination and Corporate Restructure

BTHC III, Inc. ("BTHC III" or the "Company") was organized in Delaware in June 2005 as a shell company to effect the reincorporation of BTHC III, LLC, a Texas limited liability company. On December 28, 2006, the Company effected a Share Exchange pursuant to which it acquired all of the stock of International Stem Cell Corporation, a California corporation ("ISC California"). After giving effect to the Share Exchange, the stockholders of ISC California owned 93.7% of issued and outstanding shares of common stock. As a result of the Share Exchange, ISC California is now the wholly-owned subsidiary, though for accounting purposes it was deemed to have been the acquirer in a "reverse merger." In the reverse merger, BTHC III is considered the legal acquirer and ISC California is considered the accounting acquirer. On January 29, 2007, the Company changed its name from BTHC III, Inc. to International Stem Cell Corporation.

Lifeline Cell Technology, LLC ("LCT") was formed in the State of California on August 17, 2001. LCT is in the business of developing and manufacturing purified primary human cells and optimized reagents for cell culture. LCT's scientists have used a technology, called basal medium optimization, to systematically produce products designed to culture specific human cell types and to elicit specific cellular behaviors. These techniques also produce products that do not contain non-human animal proteins, a feature desirable to the research and therapeutic markets. LCT distinguishes itself in the industry by having in place scientific and manufacturing staff with the experience and knowledge to set up systems and facilities to produce a source of consistent, standardized, non-human animal protein free cell products, some of which are suitable for FDA approval.

On July 1, 2006, LCT entered into an agreement among LCT, ISC California and the holders of membership units and warrants. Pursuant to the terms of the agreement, all the membership units in LCT were exchanged for 133,334 shares of ISC California Common Stock and for ISC California's assumption of LCT's obligations under the warrants. LCT became a wholly-owned subsidiary of ISC California.

Lifeline Skin Care, Inc. ("LSC") was formed in the State of California on June 5, 2009 and is a wholly-owned subsidiary of ISC California. LSC develops, manufactures and markets cosmetic products, utilizing an extract derived from the Company's human parthenogenetic stem cell technologies.

Cyto Therapeutics was registered in the state of Victoria, Australia, on December 19, 2014 and is a limited proprietary company and a wholly-owned subsidiary of the Company. Cyto Therapeutics is a research and development company for the Therapeutic Market, which will conduct clinical trials in Australia for the use of human parthenogenetic stem cells (hpSCs) in the treatment of Parkinson's disease.

Reverse Stock Split

Effective July 29, 2015 and pursuant to the reverse stock split approved by the Company's Board of Directors, each 150 shares of issued and outstanding common stock were combined into and became one share of common stock and no fractional shares were issued. The accompanying financial statements and related disclosures give retroactive effect to the reverse stock split for all periods presented.

Going Concern

The Company needs to raise additional working capital. The timing and degree of any future capital requirements will depend on many factors. Currently, the Company's burn rate is approximately $383,000 per month, excluding capital expenditures and patent costs averaging $59,000 per month. There can be no assurance that the Company will be successful in maintaining its normal operating cash flow and raising additional funds, and that

such cash flows will be sufficient to sustain the Company's operations through September 30, 2016. Based on the above, there is substantial doubt about the Company's ability to continue as a going concern. The condensed consolidated financial statements were prepared assuming that the Company will continue as a going concern. The condensed consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

Management's plans in regard to these matters are focused on managing its cash flow, the proper timing of its capital expenditures, and raising additional capital or financing in the future. In December 2013, the Company filed a registration statement with the Securities Exchange Commission (the "SEC"), which allowed the Company to sell up to $10,250,000 of common stock to Lincoln Park Capital Fund, LLC ("Lincoln Park") from time to time through January 2017 at the Company's discretion pursuant to the terms of a Common Stock Purchase Agreement entered into with Lincoln Park on December 10, 2013 (the "Purchase Agreement"). In connection with agreements entered into as part of a private placement effected on October 14, 2014 (the "October 2014 private placement"), the Company may not sell shares to Lincoln Park until March 2016. Additionally, pursuant to the terms of the October 2014 private placement, the Company was unable to issue securities, subject to certain exceptions, until May 7, 2015. For further discussion, see Note 6.

Basis of Presentation

The Company is a biotechnology company focused on therapeutic and clinical product development with multiple long-term therapeutic opportunities and two revenue-generating subsidiaries with potential for increased future revenues.

The accompanying unaudited condensed consolidated financial statements included herein have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information and with the instructions to Form 10-Q.

These financial statements do not include all information and notes required by generally accepted accounting principles for complete financial statements. However, except as disclosed herein, there has been no material change to the information disclosed in the notes to consolidated financial statements included in the annual report on Form 10-K of International Stem Cell Corporation and Subsidiaries for the year ended December 31, 2014.

The unaudited condensed consolidated financial information for the interim periods presented reflects all adjustments, consisting of only normal and recurring adjustments, necessary for a fair presentation of the Company's consolidated results of operations, financial position and cash flows. The unaudited condensed consolidated financial statements and the related notes should be read in conjunction with the Company's audited consolidated financial statements for the year ended December 31, 2014 included in the Company's annual report on Form 10-K. Operating results for interim periods are not necessarily indicative of the operating results for any other interim period or an entire year.

Principles of Consolidation

The Company's consolidated financial statements include the accounts of International Stem Cell Corporation and its subsidiaries after intercompany balances and transactions have been eliminated.

Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents.

Restricted Cash

Prior to July 2015, the Company was required to maintain $50,000 in a restricted certificate of deposit account in order to fully collateralize two revolving credit card accounts. In July 2015, after closing the collateralized credit card accounts, the Company received full reimbursement of the $50,000 and is no longer required to maintain any restricted cash.

Inventories

Inventories are accounted for using the first-in, first-out (FIFO) method for our Lifeline Cell Technology ("LCT") cell culture media and reagents, average cost and specific identification methods for our Lifeline Skin Care ("LSC") products, and specific identification method for our Lifeline Cell Technology products. We state our inventory balances at the lower of cost or market. Lab supplies used in the research and development process are expensed as consumed. Inventory is reviewed periodically for product expiration and obsolescence and is adjusted accordingly.

Accounts Receivable

Trade accounts receivable are recorded at the net invoice value and are not interest bearing. Accounts receivable primarily consist of trade accounts receivable from the sales of LCT's products, timing of cash receipts by the Company related to LSC credit card sales to customers, as well as LSC trade receivable amounts related to spa and distributor sales. The Company considers receivables past due based on the contractual payment terms. The Company reviews its exposure to accounts receivable and reserves specific amounts if collectability is no longer reasonably assured. As of September 30, 2015 and December 31, 2014, the Company had an allowance for doubtful accounts totaling $18,000 and $19,000, respectively.

Property and Equipment

Property and equipment are stated at cost. The provision for depreciation and amortization is computed using the straight-line method over the estimated useful lives of the assets, generally over five years. The costs of major remodeling and leasehold improvements are capitalized and amortized over the shorter of the remaining term of the lease or the life of the asset.

Intangible Assets

Intangible assets consist of acquired research and development rights used in research and development, and capitalized legal fees related to the acquisition, filing, maintenance, and defense of patents. Patent or patent license amortization only begins once a patent license is acquired or a patent is issued by the appropriate authoritative bodies. In the period in which a patent application is rejected or efforts to pursue the patent are abandoned, all the related accumulated costs are expensed. Patents and other intangible assets are recorded at cost of $3,766,000 and $3,367,000 at September 30, 2015 and December 31, 2014, respectively, and are amortized on a straight-line basis over the shorter of the lives of the underlying patents or the useful life of the license.

Long-Lived Asset Impairment

The Company reviews long-lived assets for impairment when events or changes in business conditions indicate that their carrying value may not be recovered, and at least annually. The Company considers assets to be impaired and writes them down to fair value if expected associated undiscounted cash flows are less than the carrying amounts. Fair value is the present value of the associated cash flows. The Company recognized $0 of impairments on its long-lived assets during the three months ended September 30, 2015 and 2014. The Company recognized $99,000 and $39,000 of impairments on its long-lived assets during the nine months ended September 30, 2015 and 2014, respectively.

Product Sales

The Company recognizes revenue from product sales at the time of shipment to the customer, provided no significant obligations remain and collection of the receivable is reasonably assured. If the customer has a right of return, the Company recognizes product revenues upon shipment, provided that future returns can be reasonably estimated. In the case where returns cannot be reasonably estimated, revenue will be deferred until such estimates can be made or the right of return has lapsed. LCT contributed 52% of total revenue during the nine months ended September 30, 2015 and 2014. LSC contributed 48% of total revenue during the nine months ended September 30, 2015 and 2014.

Deferred Revenue and Allowance for Sales Returns

The Company recognizes revenue from product sales when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price to the buyer is fixed or determinable, and collectability is reasonably assured. However, the LSC products have a 30-day product return guarantee for website sales. The Company has estimated the historical rate of returns for the 30-day product return guarantee, which has remained consistent for the nine months ended September 30, 2015 as compared to the years ended December 31, 2014 and 2013. At September 30, 2015 and December 31, 2014, the estimated allowance for sales returns was $10,000. At September 30, 2015 and December 31, 2014, net deferred revenue totaled $0.

Cost of Sales

Cost of sales consists primarily of salaries and benefits associated with employee efforts expended directly on the production of the Company's products and include related direct materials, general laboratory supplies and allocation of overhead. Certain of the agreements under which the Company has licensed technology will require the payment of royalties based on the sale of its future products. Such royalties will be recorded as a component of cost of sales. Additionally, the amortization of license fees or milestone payments related to developed technologies used in the Company's products will be classified as a component of cost of sales to the extent such payments become due in the future.

Research and Development Costs

Research and development costs, which are expensed as incurred, are primarily comprised of costs and expenses for salaries and benefits associated with research and development personnel, overhead and occupancy, contract services, and amortization of license costs for technology used in research and development with alternative future uses.

Stock-Based Compensation

The Company recognized stock-based compensation expense associated with stock options and other stock-based awards in accordance with the authoritative guidance for stock-based compensation. The cost of a stock-based award is measured at the grant date based on the estimated fair value of the award, and is recognized as expense on a straight-line basis, net of estimated forfeitures over the requisite service period of the award. The fair value of stock options is estimated using the Black-Scholes option valuation model, which requires the input of subjective assumptions, including price volatility of the underlying stock, risk-free interest rate, dividend yield, and expected life of the option. The fair value of restricted stock awards is based on the market value of our common stock on the date of grant.

Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between

market participants at the measurement date. Assets and liabilities that are measured at fair value are reported using a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
Level 2	Quoted prices in markets that are not active, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability; and
Level 3	Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The table below sets forth a summary of the fair values of the Company's assets and liabilities as of September 30, 2015 (in thousands):

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$ 5	$ 5	$ —	$ —
LIABILITIES:				
Warrants to purchase common stock	$1,354	$ —	$ —	$1,354

The table below sets forth a summary of the fair values of the Company's assets and liabilities as of December 31, 2014 (in thousands):

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$ 5	$ 5	$ —	$ —
LIABILITIES:				
Warrants to purchase common stock	$4,216	$ —	$ —	$4,216

The following table displays the rollforward activity of liabilities with inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity) (in thousands):

	Warrants to purchase common stock
Beginning balance at December 31, 2013	$ 4,925
Issuances of warrants	4,831
Exercise of warrants	(104)
Adjustments to estimated fair value	(2,405)
Warrants exchanged for common stock	(3,031)
Ending balance at December 31, 2014	4,216
Exercise of warrants	(394)
Adjustments to estimated fair value	(2,468)

Ending balance at September 30, 2015	$ 1,354

Income Taxes

The Company accounts for income taxes in accordance with applicable authoritative guidance, which requires the Company to provide a net deferred tax asset/liability equal to the expected future tax benefit/expense of temporary reporting differences between book and tax accounting methods and any available operating loss or tax credit carryforwards.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the unaudited condensed consolidated financial statements. Significant estimates include patent life (remaining legal life versus remaining useful life), inventory carrying values, allowance for sales returns and doubtful accounts, and transactions using the Black-Scholes option pricing model, e.g., warrants and stock options, as well as the Monte-Carlo valuation method for certain warrants. Actual results could differ from those estimates.

Fair Value of Financial Instruments

The Company believes that the carrying value of its cash and cash equivalents, receivables, accounts payable and accrued liabilities as of September 30, 2015 and December 31, 2014 approximate their fair values because of the short-term nature of those instruments. The fair value of certain warrants was determined at each quarterly reporting date as necessary using the Monte-Carlo valuation methodology.

Income (Loss) Per Common Share

The computation of net loss per common share is based on the weighted average number of shares outstanding during each period. The computation of diluted earnings per common share is based on the weighted average number of shares outstanding during the period plus the common stock equivalents, which would arise from the exercise of stock options and warrants outstanding using the treasury stock method and the average market price per share during the period. At September 30, 2015, there were 0 non-vested restricted stock awards, 178,887 vested and 72,652 non-vested stock options outstanding, and 473,130 warrants outstanding; and at September 30, 2014, there were 2,060 non-vested restricted stock awards, 51,750 shares issuable upon exercise of warrants, and 138,467 vested and 42,482 non-vested stock options outstanding. These restricted stock awards, stock options and warrants, other than certain in-the-money warrants at September 30, 2015, were not included in the diluted loss per share calculation because the effect would have been anti-dilutive. Warrants exercisable into 421,379 common shares were considered dilutive at September 30, 2015 and were included in the diluted loss per share calculation.

Comprehensive Income

Comprehensive income or loss includes all changes in equity except those resulting from investments by owners and distributions to owners. The Company did not have any items of comprehensive income or loss other than net income or loss from operations for the three and nine months ended September 30, 2015 and 2014.

Registration Payment Arrangements

In accordance with applicable authoritative guidance, the Company is required to separately recognize and measure registration payment arrangements, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement. Such payments include penalties for failure to effect a registration of securities.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (the "FASB") issued Accounting Standard Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP. ASU No. 2014-09 will be effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period, which for the Company will be its 2018 fiscal quarter. The standard permits the use of either retrospective or cumulative effect transition method. The Company is evaluating the effect that ASU 2014-09 will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor has it determined the effect of the standard on its ongoing financial reporting.

In July 2015, the Financial Accounting Standards Board (the "FASB") issued ASU No. 2015-11, *Simplifying the Measurement of Inventory*, which states that an entity should measure inventory within the scope of this Update at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. ASU No. 2015-11 will be effective for annual reporting periods beginning after December 15, 2016, including interim periods within those fiscal years, which for the Company will be its 2017 fiscal quarter. The amendments in this Update should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company is evaluating the effect that ASU 2015-11 will have on its consolidated financial statements and related disclosures. The Company has not yet determined the effect of the standard on its ongoing financial reporting.

2. Inventory

The components of inventories are as follows (in thousands):

	September 30, 2015	December 31, 2014
Raw materials	$ 239	$ 191
Work in process	691	507
Finished goods	1,029	1,012
Total	1,959	1,710
Less: allowance for inventory obsolescence	(85)	(193)
Inventory, net	$ 1,874	$ 1,517

3. Property and Equipment

Property and equipment consists of the following (in thousands):

	September 30, 2015	December 31, 2014
Machinery and equipment	$ 1,361	$ 1,357
Computer equipment	315	294
Office equipment	203	203
Leasehold improvements	756	756
Construction in progress	2	—
	2,637	2,610
Less: accumulated depreciation and amortization	(2,178)	(1,896)
Property and equipment, net	$ 459	$ 714

Depreciation expenses for the three and nine months ended September 30, 2015 were $93,000 and $287,000, respectively. During the same periods in the prior year, depreciation expenses were $101,000 and $302,000, respectively.

4. Patent Licenses

On December 31, 2003, LCT entered into an *Option to License Intellectual Property* agreement with Advanced Cell Technology, Inc., which changed its name to Ocata Therapeutics, Inc. ("Ocata") for patent rights and paid Ocata $340,000 in option and license fees. On February 13, 2004, LCT and Ocata amended the Option agreement and LCT paid Ocata additional option fees of $22,500 for fees related to registering Ocata's patents in selected international countries.

On May 14, 2004, LCT amended the licensing agreement with Ocata for the exclusive worldwide patent rights for the following Ocata technologies: UMass IP, ACT IP and Infigen IP. The additional license fees paid were $400,000.

On February 7, 2013, the Company and Ocata entered into Amended and Restated License Agreements (the "Amendment") for the purpose of completely amending and restating the terms of the license agreements. Under the terms of the Amendment, the Company acquired exclusive world-wide rights to all human therapeutic uses and cosmetic uses from Ocata and Infigen's early work on parthenogenic-derived embryonic stem cells, as well as certain rights to patents covering Single Blastomere technology.

Pursuant to the Amendment, all minimum R&D requirements and all milestone payments due to Ocata under the Exclusive License Agreement have been eliminated. The Company will no longer pay any royalties under the ACT IP Agreement and Infigen IP Agreement. The obligation to pay royalties that ranged from 6%-12% under the UMass IP Agreement has been reduced to 0.25% of the net sales of products using technology covered by the UMass IP Agreement; and the obligation to pay a minimum annual license fee of $150,000 has been reduced to $75,000 annually, payable in two installments to Ocata. As of September 30, 2015, the total amount capitalized related to the acquired Ocata licenses was $747,000 and $3,019,000 related to the other patent acquisition costs.

Patents and other intangible assets were recorded at cost of $3,766,000 and $3,367,000 at September 30, 2015 and December 31, 2014, respectively. Amortization expense for the three and nine months ended September 30, 2015 was $21,000 and $73,000, respectively. Amortization expense for the three and nine months ended September 30, 2014 was $16,000 and $47,000, respectively. All amortization expense related to intangible assets is included in general and administrative expense. Accumulated amortization as of September 30, 2015 and December 31, 2014 was $645,000 and $572,000, respectively.

At September 30, 2015, future amortization expense related to intangible assets subject to amortization is expected to be as follows (in thousands):

	Amount
2015 (remaining three months)	$ 26
2016	83
2017	83
2018	83
2019	50
Thereafter	2,750
Total	$ 3,075

5. Advances

On June 18, 2008, the Company entered into an agreement with BioTime, Inc. ("Bio Time"), where Bio Time will pay an advance of $250,000 to LCT to produce, make, and distribute Joint Products. The $250,000 advance will be paid down with the first $250,000 of net revenues that otherwise would be allocated to LCT under the agreement. As of September 30, 2015, no revenues were realized from this agreement.

	September 30, 2015	December 31, 2014
BioTime, Inc. (in thousands)	$ 250	$ 250

6. Capital Stock

As of September 30, 2015, the Company is authorized to issue 720,000,000 shares of common stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share.

Preferred Stock Transactions

Series B Preferred Stock

On May 12, 2008, to obtain funding for working capital, the Company entered into a series of subscription agreements with five accredited investors for the sale of a total of 400,000 Series B Units, each Series B Unit consisting of one share of Series B Preferred Stock ("Series B Preferred") and two Series B Warrants ("Series B Warrants") to purchase common stock for each $1.00 invested.

The total purchase price received by the Company was $400,000. The Series B Preferred is convertible into shares of common stock at the initial conversion ratio of 0.0134 shares of common stock for each share of Series B Preferred converted (which was established based on an initial conversion price of $75.00 per share), and the Series B Warrants were exercisable at $75.00 per share until five years from the issuance of the Series B Warrants, which expired unexercised in May 2013. The Series B Preferred contain anti-dilution clauses whereby, if the Company issues equity securities or securities convertible into equity at a price below the conversion price of the Series B Preferred, such conversion price shall be adjusted downward to equal the price of the new securities. In October 2014, the Company issued Preferred Stock which had an initial conversion price of $9.6705, which in November 2014 was adjusted down to $8.64, again in February 2015 down to $6.72, and again in August 2015 further down to $1.79. Accordingly, these transactions triggered adjustments in the current conversion price of the Series B Preferred to $1.79 per share. The Series B Preferred has a priority (senior to the shares of common stock and Series H Preferred) on any sale or liquidation of the Company equal to the purchase price of the Series B Units, plus a liquidation premium of 6% per year. If the Company elects to declare a dividend in any year, it must first pay to the Series B Preferred holder a dividend equal to the amount of the dividend the Series B Preferred holder would receive if the Series B Preferred were converted just prior to the dividend declaration. Each share of Series B Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. As of September 30, 2015 and December 31, 2014, there were 300,000 shares of the Series B Preferred issued and outstanding.

Series D Preferred Stock

On December 30, 2008, the Company entered into a Series D Preferred Stock Purchase Agreement (the "Series D Agreement") with accredited investors (the "Investors") and sold 47 shares of Series D Preferred Stock ("Series D Preferred") for total proceeds of $4,700,000 at a price of $100,000 per Series D Preferred share.

10 shares of the Series D Preferred were issued to X-Master Inc., which is a related party and affiliated with the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin and Dr. Russell Kern (formerly Ruslan Semechkin), Chief Scientific Officer and a director; and 33 shares of the Series D Preferred were issued to Dr. Andrey Semechkin. As of September 30, 2015 and December 31, 2014, there were 43 shares of the Series D Preferred issued and outstanding.

The Series D Preferred was initially convertible into shares of common stock at $37.50 per share, resulting in an initial conversion ratio of 2,667 shares of common stock for every share of Series D Preferred. The Series D Preferred has an anti-dilution clause whereby, if the Company issues equity securities or securities convertible into equity at a price below the conversion price of the Series D Preferred, the conversion price of the Series D Preferred shall be adjusted downward to equal the price of the new securities. The Series D Preferred has priority over the Series A Preferred Stock, Series B Preferred Stock and Common Stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series D Preferred.

In October 2014, the Company issued Preferred Stock which had an initial conversion price of $9.6705, which in November 2014 was adjusted down to $8.64, again in February 2015 down to $6.72, and again in August 2015 further down to $1.79. Accordingly, these transactions triggered adjustments in the current conversion price of the Series D Preferred to $1.79.

Series G Preferred Stock

On March 9, 2012, the Company entered into a Series G Preferred Stock Purchase Agreement (the "Series G Agreement") with AR Partners, LLC (the "Purchaser") to sell 5,000,000 shares of Series G Preferred Stock ("Series G Preferred") at a price of $1.00 per Series G Preferred share, for a total purchase price of $5,000,000. The Purchaser is an affiliate of Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, and Dr. Russell Kern, Chief Scientific Officer and a director.

The Series G Preferred was initially convertible into shares of common stock at $60.00 per share, resulting in an initial conversion ratio of 0.0167 shares of common stock for every share of Series G Preferred. The conversion price may be adjusted for stock splits and other combinations, dividends and distributions, recapitalizations and reclassifications, exchanges or substitutions and is subject to a weighted-average adjustment in the event of the issuance of additional shares of common stock below the conversion price.

The Series G Preferred shares have priority over the Series B Preferred, Series H Preferred and common stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series G Preferred, but such payment may be made only after payment in full of the liquidation preferences payable to holders of any shares of Series D Preferred then outstanding. Each share of Series G Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. As long as there are at least 1,000,000 shares of Series G Preferred outstanding, the holders of Series G Preferred have (i) the initial right to propose the nomination of two members of the Board, at least one of which such nominees shall be subject to the approval of the Company's independent directors, for election by the stockholder's at the Company's next annual meeting of stockholders, or, elected by the full board of directors to fill a vacancy, as the case may be, and (ii) the right to approve any amendment to the certificate of incorporation, certificates of designation or bylaws, in manner adverse to the Series G Preferred, alter the percentage of board seats held by the Series G Preferred directors or increase the authorized number of shares of Series G Preferred. At least one of the two directors nominated by holders of the Series G Preferred shall be independent based on the NASDAQ listing requirements.

The Company determined that the Series G Preferred had a contingent redemption feature allowing redemption by the holder under only some very limited circumstances ("deemed liquidation events"). As the event that may trigger the redemption of the convertible preferred stock was not solely within the Company's control, the convertible preferred stock was classified as mezzanine equity (outside of permanent equity) on the Company's condensed consolidated balance sheet upon issuance. Additionally, legal costs related to the Series G Preferred financing in the amount of $59,000 were recorded in the mezzanine equity as well. On December 31, 2014, the Company entered into a Waiver Agreement with all of the holders of its Series G Preferred Stock, whereby the holders irrevocably and unconditionally waived all rights they held to require the Company to redeem any or all shares of the Series G Preferred Stock and to receive any payments and any other rights accruing to them by reason of the failure of the Company to redeem shares of Series G Preferred Stock, pursuant to the terms of the Series G Certificate of Designation. Holders of Series G Preferred Stock are Dr. Andrey Semechkin and

Dr. Russell Kern, each of whom is a director and executive officer of the Company, and affiliated entities of Dr. Andrey Semechkin and Dr. Russell Kern. Subsequent to the signing of the Waiver Agreement, the Series G Preferred Stock is classified within permanent equity on the Company's condensed consolidated balance sheet.

As of September 30, 2015 and December 31, 2014, there were 5,000,000 shares of the Series G Preferred issued and outstanding.

In October 2014, the Company issued Series H Preferred Stock which had an initial conversion price of $9.6705, which in November 2014 was adjusted down to $8.64, again in February 2015 down to $6.72, and again in August 2015 further down to $1.79. Accordingly, these transactions triggered an adjustment in the current conversion price and conversion ratio of the Series G Preferred to $23.8103 per share and 0.0420 shares, respectively.

Series H Preferred Stock

On October 14, 2014, pursuant to a securities purchase agreement (the "Securities Purchase Agreement"), dated as of October 7, 2014, with Sabby Healthcare Volatility Master Fund, Ltd., Sabby Volatility Warrant Master Fund, Ltd., and Andrey and Russell Kern, the Company's Chief Executive Officer and Co-Chairman and Chief Scientific Officer and Director, respectively, (together, the "Purchasers"), the Company sold in a private placement (the "Private Placement") (i) 2,000 shares of Series H-1 and 500 shares of Series H-2 Convertible Preferred Stock, par value $0.001 with a stated value of $1,000 per share (the "Series H Preferred Stock"), convertible into 258,519 shares of common stock at an initial conversion price of $9.6705, (ii) Series A warrants (the "Series A Warrants") to purchase up to 258,519 shares of common stock for an initial exercise price of $13.8150 per share exercisable immediately and having a term of 5.5 years, (iii) Series B warrants (the "Series B Warrants") to purchase up to 258,519 shares of common stock for an initial exercise price of $9.6705 per share exercisable immediately and having a term of 6 months, (iv) Series C warrants (the "Series C Warrants", together with the Series A Warrants and the Series B Warrants, collectively, the "Warrants") to purchase up to 258,519 shares of common stock for an initial exercise price of $9.6705 per share exercisable immediately and having a term of 12 months. The aggregate initial gross proceeds received from this transaction were $2.5 million. On April 14, 2015, the Company and the holders of the Series B Warrants, issued in the October 2014 private placement, that remained outstanding as of that date, amended those remaining Series B Warrants to (i) extend the termination date to June 20, 2015; (ii) set the exercise price at $11.25 per share; (iii) remove certain price reset adjustment provisions to the exercise price and (iv) remove certain provisions related to cashless exercise, participation rights and anti-dilution effects of a subsequent financing. On June 20, 2015, the remaining unexercised Series B Warrants then outstanding expired unexercised.

The number of shares issuable upon conversion of the Series H Preferred Stock and exercise of the Series A, Series C, and Placement Agent Warrants are adjustable in the event of stock splits, stock dividends, combinations of shares and similar transactions, and pursuant to anti-dilution provisions. In addition, Purchasers have been granted rights of participation in future offerings of our securities for eighteen months from the date of the offering.

The Securities Purchase Agreement entered into in the Private Placement required the Company to hold a special meeting of stockholders to seek stockholder approval of an increase in the number of authorized shares of common stock under the Company's certificate of incorporation to 720,000,000 shares and approve a reverse stock split. The special meeting of stockholders was held on December 4, 2014 and the stockholders approved the increase in the authorized shares of common stock and the reverse stock split. In connection with the Private Placement, the Company also entered into a registration rights agreement, as amended, with the investors pursuant to which the Company was obligated to file registration statements to register the resale of (i) 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock, and (ii) 100% of the shares of common stock issuable upon exercise of the warrants. In addition to the registration rights, the Purchasers are entitled to receive liquidated damages upon the occurrence of a number of events relating to filing, getting effective and maintaining effective registration statements covering the shares underlying the Series H Preferred Stock and the Warrants, including the failure of the Company to file a resale registration statement registering 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred

Stock by no later than November 13, 2014 and the failure of the Company to have such resale registration statement declared effective by the Securities and Exchange Commission (the "SEC") by no later than December 13, 2014, subject to certain exceptions. The Company filed such registration statement on November 3, 2014 and such registration was declared effective by the SEC on November 25, 2014. Further, on January 16, 2015, the Company filed a registration statement registering 100% of the shares of common stock issuable upon exercise of the warrants, which was declared effective by the SEC on February 6, 2015.

Subject to certain ownership limitations with respect to the Series H-1 Preferred Stock, the Series H Preferred Stock is convertible at any time into shares of Common Stock at an initial conversion price of $9.6705 per share. The Series H Preferred Stock is non-voting, is only entitled to dividends in the event that dividends are paid on the Common Stock, and will not have any preferences over the Common Stock, except that the Series H Preferred Stock shall have preferential liquidation rights over the Common Stock. Other than the Series H-1 Preferred Stock having a beneficial ownership limitation, the Series H-1 Preferred Stock and Series H-2 Preferred Stock are substantially identical. The conversion price of the Series H Preferred Stock is subject to certain resets as set forth in the Certificates of Designation, including the date of the amendment to the certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the Closing Date.

The Warrants are immediately exercisable. As noted earlier above, on June 20, 2015, the remaining unexercised Series B Warrants then outstanding expired unexercised. The exercise price of the Series A, Series C, and Placement Agent Warrants are subject to certain reset adjustments as set forth in the forms of Warrant, including the date of the amendment to the Company's certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the date of issuance of the Warrants. Pursuant to the terms of the Securities Purchase Agreement, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park, or otherwise enter into a variable rate transaction, until March 2016. Additionally, pursuant to the terms of the Securities Purchase Agreement, the Company was unable to issue any of its securities until May 7, 2015 (the 90th day following the effective date of the last registration statement on Form S-1 registering all Registrable Securities (as defined in the registration rights agreement, as amended, entered into in connection with the Securities Purchase Agreement)). However, the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers, directors and employees at market prices and issuing securities pursuant to the Company's equity incentive plans.

H.C. Wainwright & Co. (the "Placement Agent") acted as the exclusive placement agent for the Securities Purchase Agreement pursuant to a placement agency engagement letter, dated as of September 23, 2014, by and between the Placement Agent and the Company (the "Engagement Letter"). Upon the closing of the Securities Purchase Agreement, pursuant to the Engagement Letter, the Placement Agent received a placement agent fee of $200,000 and a warrant to purchase approximately 62,045 shares of common stock, as well as the reimbursement of fees and expenses up to $50,000. Similar to the Series A Warrant, the placement agent warrant will have an initial exercise price of $13.815 per share, be immediately exercisable and will terminate 5.5 years after the date of issuance. In addition, the Placement Agent Warrants have the same down-round protection as the Series A Warrants.

The Company's registration statement on Form S-1 filed on November 3, 2014 with the SEC became effective after amendment on November 25, 2014 registering 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock.

Pursuant to the terms of the Securities Purchase Agreement, the conversion price of the Series H Preferred Stock and the exercise price of the Series A, C and Placement Agent Warrants was reset at $1.79 per share. During the nine months ended September 30, 2015, the investors converted 1,481.60 shares of Series H Preferred Stock into 364,290 shares of our common stock. During year ended December 31, 2014, the investors converted 518.4 shares of Series H Preferred Stock into 60,000 shares of our common stock.

See Note 9, Stock Options and Warrants, *Warrants Issued with Series H Preferred Stock* for detailed discussion of the anti-dilution provisions of the Series A, B, C and Placement Agent Warrants.

Common Stock Transactions

2013 S-1 July Registered Offering

See Note 9, Stock Options and Warrants, *2013 S-1 July Registered Offering* and *2014 Warrant Exchange Agreements*.

2014 Securities Purchase Agreements for Common Stock

On May 29, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern to sell a total of 22,223 shares of common stock at a price of $22.50 per share, for a total purchase price of $500,000. On June 26, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern to sell a total of 36,667 shares of common stock at a price of $15.00 per share, for a total purchase price of $550,000. Dr. Andrey Semechkin is the Company's Co-Chairman and Chief Executive Officer. Dr. Russell Kern is the Company's Chief Scientific Officer and director. On August 6, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern to sell a total of 40,000 shares of common stock at a price of $15.00 per share, for a total purchase price of $600,000. On September 10, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Russell Kern to sell a total of 29,630 shares of common stock at a price of $13.50 per share, for a total purchase price of $400,000.

2014 Warrant Exchange Agreements

On June 11, 2014, the Company entered into a series of warrant exchange agreements (the "Warrant Exchange Agreements") with the holders of its Series A Warrants and Placement Agent Warrants that were issued by the Company pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, the Company agreed to issue a total of 297,772 shares of common stock (the "Exchange Shares") to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 243,699 shares of common stock and the Placement Agent Warrants to purchase 4,445 shares of common stock and Series A Warrants. Dr. Andrey Semechkin and Dr. Russell Kern, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 67,255 shares of common stock for 80,706 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares. Upon settlement of the exchange transaction, there were no remaining Series A Warrants or Placement Agent Warrants outstanding. See Note 9, Stock Options and Warrants, *2014 Warrants Exchange Agreements*- for detailed discussion of the accounting treatment of the Warrant Exchange transaction.

2013 Lincoln Park Capital Fund, LLC Stock Purchase Agreement

On December 10, 2013, the Company entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has agreed to purchase up to an aggregate of $10,250,000 of common stock (subject to certain limitations) from time to time through January 2017. Of the aggregate $10,250,000 of common stock that may be sold to Lincoln Park, on December 11, 2013, the Company sold 11,112 shares of common stock to Lincoln Park for an aggregate purchase price of $250,000 pursuant to the Purchase Agreement, which is referred to as the Initial Purchase. Upon execution of the Purchase Agreement, the Company paid to Lincoln Park $155,000, as a cash fee, for their commitment to purchase additional shares of common stock under the Purchase Agreement.

Also on December 10, 2013, the Company entered into a Registration Rights Agreement with Lincoln Park, pursuant to which the Company filed with the SEC an S-1 Registration Statement to register for resale under the Securities Act of 1933, as amended, or the Securities Act, the shares that have been or may be issued to Lincoln Park under the Purchase Agreement. The S-1 Registration Statement filed with the Securities and Exchange Commission in December 2013 and amended in January 2014 was declared effective on January 13, 2014.

During the nine months ended September 30, 2015, the Company sold 0 shares to Lincoln Park. From commencement through to September 30, 2015, the Company has sold a total of 65,778 shares of common stock to Lincoln Park for an aggregate of $1,838,000 under the Agreement. As of September 30, 2015, there remained 67,556 shares available for sale up to a total of $8,412,000 under the Purchase Agreement with Lincoln Park.

The Company may, from time to time and in its sole discretion, direct Lincoln Park to purchase shares of common stock in amounts up to 1,334 shares on any single business day so long as at least one business day has passed since the most recent purchase, which amounts may be increased to up to 2,000 shares and up to 2,667 shares, provided the closing price of the common stock exceeds a certain threshold, with a maximum limit of up to $500,000 per purchase, plus an additional "accelerated amount" under certain circumstances. There are no trading volume requirements or restrictions under the Purchase Agreement, and the Company will control the timing and amount of any sales of common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park under the Purchase Agreement will be based on the market price of the common stock immediately preceding the time of sale as computed under the Purchase Agreement without any fixed discount; provided that in no event will such shares be sold to Lincoln Park when the closing sale price is less than $7.50 per share, subject to adjustment as provided in the Purchase Agreement.

The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. The Company may at any time in its sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business day notice. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

Pursuant to the terms of a securities purchase agreement entered into with investors in connection with a private placement effected October 14, 2014, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park until March 2016.

Reserved Shares

At September 30, 2015, the Company had shares of common stock reserved for future issuance as follows:

Options outstanding	251,539
Options available for future grant	1,050,916
Convertible preferred stock	3,053,910
Warrants	473,130
	4,829,495

7. Related Party Transactions

Other than with respect to the purchases of Series D Preferred, Series G Preferred, Series H Preferred, and common stock transactions discussed above, the Company's related party transactions were for a facility lease and working capital bridge loan.

During the first quarter of 2011, the Company executed an operating lease for its corporate offices with S Real Estate Holdings LLC. S Real Estate Holdings LLC is owned by Dr. Russell Kern, the Company's Chief Scientific Officer and a director and was previously owned by Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors. The lease agreement was negotiated at arm's length and was reviewed by the Company's outside legal counsel. The terms of the lease were reviewed by a committee of independent directors, and the Company believes that, in total, those terms are at least as favorable to the Company as could be obtained for comparable facilities from an unaffiliated party. For the three months ended September 30, 2015 and 2014, the Company recorded $35,000 in rent expense that was related to the facility lease arrangement with related parties. For the nine months ended September 30, 2015 and 2014, the Company recorded $104,000 related to the same arrangement with the related party.

Between May 6, 2015 and September 9, 2015, to obtain funding for working capital purposes and to refinance the indebtedness incurred from multiple notes during this time frame, the Company borrowed a total of $2,862,000 from Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, and issued an unsecured, non-convertible promissory note in the principal amount of $2,862,000 (the "Note") to Dr. Andrey Semechkin. As of September 30, 2015, the principal amount under the Note accrues interest at a rate of One Half of One Percent (0.50%) per annum. The Note was due and payable October 9, 2015. See Note 12, Subsequent Events.

8. Income Taxes

The Company estimated Federal and state tax losses for the current year and recorded a full valuation allowance against all net deferred tax assets. As such, no income tax provision has been recorded for the current period. The Company may be subject to IRC Code Sections 382 and 383, which could limit the amount of the net operating loss and tax credit carryovers that can be used in future years. The Company has not completed a study to assess whether an ownership change has occurred, as defined by IRC Code Sections 382 and 383, or whether there have been ownership changes since the Company's formation due to the complexity and cost associated with such a study, and the fact that there may be additional such ownership changes in the future. The Company estimates that if such a change did occur, the federal and state net operating loss carryforwards and research and development credit carryforwards that can be utilized in the future will be significantly limited. There can be no assurances that the Company will ever be able to realize the benefit of some or all of the federal and state loss carryforwards or the credit carryforwards, either due to ongoing operating losses or due to ownership changes, which limit the usefulness of the carryforwards.

9. Stock Options and Warrants

Stock Options

The Company adopted the 2006 Equity Participation Plan (the "2006 Plan"), which provides for the grant of stock options, restricted stock and other equity based awards. Awards for up to 100,000 shares may be granted to employees, directors and consultants under this Plan. The options granted under the 2006 Plan may be either qualified or non-qualified options. Options may be granted with different vesting terms and expire no later than 10 years from the date of grant.

In April 2010, the Company adopted the 2010 Equity Participation Plan (the "2010 Plan"), which provides for the grant of stock options, restricted stock and other equity based awards. Awards for up to 1,200,000 shares may be granted to employees, directors and consultants under the 2010 Plan. The options granted under the 2010 Plan may be either qualified or non-qualified options. Options may be granted with different vesting terms and expire no later than 10 years from the date of grant.

In November and December of 2009, the Company issued non-qualified stock options to purchase 68,384 shares of common stock outside the 2006 and 2010 option plans to certain employees and consultants. These options vest over 50 months and expire no later than 10 years from the date of grant.

Total stock-based compensation expense for the three and nine months ended September 30, 2015 and 2014 was comprised of the following (in thousands):

	Three Months Ended September 30, 2015	Three Months Ended September 30, 2014	Nine Months Ended September 30, 2015	Nine Months Ended September 30, 2014
Cost of sales	$ 6	$ 15	$ 20	$ 45
Research and development	30	78	121	221
Selling and marketing	8	13	25	36
General and administrative	114	384	334	910
	$ 158	$ 490	$ 500	$ 1,212

Unrecognized compensation expense related to stock options as of September 30, 2015 was $588,000, which is expected to be recognized over a weighted average period of approximately 2.14 years.

In accordance with applicable authoritative guidance, the Company is required to establish assumptions and estimates of the weighted-average fair value of stock options granted, as well as use a valuation model to calculate the fair value of stock-based awards. The Company uses the Black-Scholes option-pricing model to determine the fair-value of stock-based awards. All options are amortized over the requisite service periods. Stock-based compensation for stock options granted to non-employees has been determined using the Black-Scholes option pricing model. These options are revalued at each reporting period until fully vested, with any change in fair value recognized in the condensed consolidated statements of operations.

The fair value of options granted is estimated at the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions for the three and nine months ended September 30, 2015 and 2014:

	Three Months Ended September 30, 2015	Three Months Ended September 30, 2014	Nine Months Ended September 30, 2015	Nine Months Ended September 30, 2014
Significant assumptions (weighted average):				
Risk-free interest rate at grant date	1.53%	2.00%	1.56%	1.91%
Expected stock price volatility	93.85%	98.23%	93.81%	99.65%
Expected dividend payout	0%	0%	0%	0%
Expected option life based on management's estimate	5.14 years	6.1 years	5.26 years	6.1 years

Transactions involving stock options issued to employees, directors and consultants under the 2006 Plan, the 2010 Plan and outside the plans are summarized below. Options issued have a maximum life of 10 years. The following tables summarize the changes in options outstanding and the related exercise prices for the Company's common stock options issued:

	Number of Options Issued Under 2006 Plan and 2010 Plan	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2013	106,970	$ 168.00		
Granted	42,160	$ 21.00		
Exercised	—	$ —		
Canceled or expired	(6,886)	$ 79.50		
Outstanding at December 31, 2014	142,244	$ 128.47		
Granted	75,171	$ 3.64		
Exercised	—	$ —		
Canceled or expired	(16,606)	$ 107.92		
Outstanding at September 30, 2015	200,809	$ 83.44	7.23 years	$ 78,000
Vested and expected to vest at September 30, 2015	193,991	$ 85.87	7.16 years	$ 75,798
Exercisable at September 30, 2015	128,157	$ 123.65	6.05 years	$ 39,000

	Number of Options Issued Outside the Plan	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2013	50,730	$ 92.00		
Granted	—	$ —		
Exercised	—	$ —		
Canceled or expired	—	$ —		
Outstanding at December 31, 2014	50,730	$ 92.00		
Granted	—	$ —		
Exercised	—	$ —		
Canceled or expired	—	$ —		
Outstanding, vested and exercisable at September 30, 2015	50,730	$ 92.00	4.11 years	$ —

Restricted Stock Awards

Restricted stock awards are grants that entitle the holder to acquire shares of common stock at zero or a fixed price, which is typically nominal. The Company accounts for the restricted stock awards as issued and outstanding common stock, even though the shares covered by a restricted stock award cannot be sold, pledged, or otherwise disposed of until the award vests and any unvested shares may be reacquired by the Company for the original purchase price following the awardee's termination of service. Annual grants of restricted stock awards are made to the non-employee members of the board of directors on the date of the annual meeting of stockholders and typically vest in full at the next annual meeting of stockholders following the grant date. Beginning in 2013, additional annual grants of restricted stock awards were made to the non-employee members of the board of directors as partial compensation for their services. These awards vest quarterly at the end of each quarter. In addition, the Company has made restricted stock awards to non-employee consultants for their services, which generally vest in one year or less.

The following table summarizes the changes in restricted stock award activity and the related weighted average exercise prices for the Company's awards issued:

	Restricted Stock Issued from the 2006 Plan and 2010 Plan	Weighted Average Grant Date Fair Value
Unvested at December 31, 2013	968	$ 34.50
Granted	7,309	$ 25.50
Vested	(7,309)	$ 27.00
Forfeited	—	$ —
Unvested at December 31, 2014	968	$ 24.00
Granted	12,338	$ 5.86
Vested	(13,306)	$ 7.13
Forfeited	—	$ —

Unvested at September 30, 2015	$ —

The fair value of the restricted stock awards is based on the market value of the common stock on the date of grant. The total grant-date fair value of restricted stock awards vested during the nine months ended September 30, 2015 and 2014 was approximately $95,000 and $143,000, respectively. The Company recognized approximately $25,000 and $54,000 of stock-based compensation expense related to the restricted stock awards

for the three months ended September 30, 2015 and 2014, respectively. Additionally, during the nine months ended September 30, 2015 and 2014, the Company recognized approximately $80,000 and $139,000 of stock-based compensation expense related to the restricted stock awards, respectively. As of September 30, 2015, total unrecognized compensation costs related to unvested awards was $0.

Warrants

Warrants Issued with Preferred Stock

Warrants issued in connection with the October 2014 Financing

The Company has accounted for the warrants in accordance with current accounting guidance, which defines how freestanding contracts that are indexed to and potentially settled in a Company's own stock should be measured and classified. The authoritative accounting guidance prescribes that only warrants issued under contracts that cannot be net-cash settled and are both indexed to and settled in the Company's common stock can be classified as equity. As the Series A, Series B and Series C Warrants and Placement Agent Warrant agreements did not meet the specific conditions for equity classification, the Company was required to classify the fair value of the warrants issued as a liability, with subsequent changes in fair value to be recorded as income (loss) in the statement of operations upon revaluation of the fair value of warrant liability at each reporting period. Valuation of the Warrants was estimated at issuance, at December 31, 2014 and September 30, 2015 using the Monte-Carlo simulation model.

The following assumptions were used as inputs to the model at September 30, 2015: for Series A Warrants and the Placement Agent Warrants, stock price of $3.95 and warrant exercise price of $1.79 as of the valuation date; the Company's historical stock price volatility of 77.6%; risk free interest rate on U.S. treasury notes of 1.26%; warrant expiration of 4.54 years; and a zero dividend rate, for Series C Warrants, stock price of $3.95 and warrant exercise price of $1.79 as of the valuation date; the Company's historical stock price volatility of 77.6%; risk free interest rate on U.S. treasury notes of 0.00%; warrant expiration of 0.04 years; and a zero dividend rate; simulated as a daily interval and anti-dilution impact if the Company had to raise capital below $1.79 per share.

The fair value of the warrant liability at the issuance date exceeded the gross proceeds received for the Series H Preferred shares, Series A, Series B and Series C Warrants by $1,779,000. The Series A Warrants, Series B Warrants, Series C Warrants and Placement Agent Warrants had fair values of $2,299,000, $841,000, $1,139,000 and $552,000 at issuance, respectively. The classification and valuation of the warrants resulted in total warrant liabilities of $4,831,000. On April 14, 2015, the Company and the holders of the Series B Warrants issued in the October 2014 private placement, that remained outstanding as of that date, amended those remaining Series B Warrants to (i) extend the termination date to June 20, 2015; (ii) set the exercise price at $11.25 per share; (iii) remove certain price reset adjustment provisions to the exercise price and (iv) remove certain provisions related to cashless exercise, participation rights and anti-dilution effects of a subsequent financing. As a result of this modification, the Company recorded a net change in fair value of warrant liability gain of $388,000. During the three and nine months ended September 30, 2015, the Company recorded a net change in fair value of warrant liability gain of $87,000 and $2.5 million, respectively in the condensed consolidated statements of operations.

Series B Warrant Exercises – During the year ended December 31, 2014, the Company received net proceeds of $339,506 upon the exercise of 39,295 of the Series B Warrants by, Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer. During the nine months ended September 30, 2015, the Company received net proceeds of $83,388 upon the exercise of 12,409 of the Series B Warrants by, Dr. Russell Kern, the Company's Chief Scientific Officer and director. On June 20, 2015, the remaining unexercised outstanding Series B Warrants of 206,815 shares expired.

Series C Warrant Exercises – During the nine months ended September 30, 2015, the Company received net proceeds of $537,538 upon the exercise of 157,704 of the Series C Warrants by, Dr. Andrey Semechkin and Dr. Russell Kern, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, and other holders of the Series C Warrants.

Series A, C and Placement Agent Warrants Price Adjustment – The Warrants are immediately exercisable and the exercise price of the Warrants is subject to certain reset adjustments as set forth in the forms of Warrant, including the date of the amendment to the Company's certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the date of issuance of the Warrants. The Company's registration statement on Form S-1 filed on November 3, 2014 with the SEC became effective after amendment on November 25, 2014. Pursuant to the terms of the Securities Purchase Agreement, the conversion price of the Series H Preferred Stock and the exercise price of the Series A, C and Placement Agent Warrants was reset at $1.79 per share.

Warrants Issued with Common Stock

2013 Securities Purchase Agreements for Common Stock

In conjunction with the Company's sale of 67,500 shares of common stock on January 22, 2013, the Company issued warrants convertible into 33,750 shares of common stock at an exercise price of $30.00 per share. The warrants have a five-year term. These warrants are held by Dr. Andrey Semechkin and Dr. Simon Craw, the Company's Co-Chairman and Chief Executive Officer and the Company's Former Executive Vice President Business Development, respectively.

On March 12, 2013 the Company issued warrants convertible into 16,667 shares of common stock in conjunction with the sale of 33,334 shares of common stock. These warrants have a five-year term and an exercise price of $30.00 per share. Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer is the holder of 1,667 of these warrants.

2013 S-1 July Registered Offering

On July 24, 2013 the Company sold 20,000,000 Units, with each Unit consisting of 0.0067 share of common stock and 0.0067 Series A Warrant. The Series A Warrants were convertible into 133,334 shares of common stock at an exercise price of $22.50 per share. The warrants have a five year term and were immediately exercisable. In addition, the Company issued 133,334 Series B Warrants each to purchase one Unit. The Series B Warrants were immediately exercisable at an initial exercise price of $22.50 per Unit, subject to adjustment and expired on October 24, 2013. The Units issuable upon exercise of the Series B Warrants consisted of 133,334 shares of common stock and 133,334 Series A Warrants, which were convertible into an additional 133,334 shares of common stock at an exercise price of $22.50 per share. All Series A Warrants had an expiration date of the fifth anniversary of the transaction close, July 24, 2018, regardless of the date the Series A Warrants were issued. See the *2014 Warrant Exchange Agreements* – discussed below.

On July 19, 2013, the Company also entered into a placement agent agreement (the "Placement Agent Agreement") with Roth Capital Partners, LLC (the "Placement Agent"), pursuant to which the Placement Agent agreed to act on a reasonable best efforts basis for the Offering. The Company paid the Placement Agent a cash fee equal to 5% of the gross proceeds from the Offering and reimbursed the Placement Agent for its reasonable out-of-pocket expenses of $75,000. The Company also issued 4,445 Placement Agent Warrants to purchase Units equal to 5% of the aggregate number of Units issued in the Offering (other than the Units issued to Andrey Semechkin and Russell Kern). The Placement Agent Warrants had substantially the same terms as the Series B Warrants, except that the Placement Agent Warrants (i) had an exercise price of $22.50 per Unit, subject to adjustments similar to those applicable to the Series A Warrants, (ii) had a term of five years, (iii) provided for a cashless exercise, and (iv) otherwise comply with the requirements of the Financial Institutions Regulatory Authority, Inc. (FINRA). The Company also agreed to pay the Placement Agent a cash solicitation fee equal to 5% of the gross proceeds received by the Company upon the exercise of the Series B Warrants under certain circumstances. See the *2014 Warrant Exchange Agreements* – discussed below.

Series A and B Warrant Exercises – There were no warrant exercises during the year ended December 31, 2014.

2014 Warrant Exchange Agreements – On June 11, 2014, the Company entered into a series of warrant exchange agreements (the "Warrant Exchange Agreements") with the holders of its Series A Warrants and Placement Agent Warrants that were issued by the Company pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, the Company agreed to issue a total of 297,772 shares of common stock (the "Exchange Shares") to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 243,699 shares of common stock and the Placement Agent Warrants to purchase 4,445 shares of common stock and Series A Warrants. Dr. Andrey Semechkin and Dr. Russell Kern, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 67,255 shares of common stock for 80,706 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares.

Immediately prior to the Warrant Exchange transaction, the Company recorded a net change in fair value of warrant liability gain of $1,271,000. As a result of the Warrant Exchange, the Company recognized a $3,445,000 loss for the warrant exchange inducement expense. In addition, the Company recorded a reclassification of $3,031,000 to additional paid in capital from warrant liability for a total increase to additional paid in capital of $6,428,000, which represents the fair value of the stock issued in the Warrant Exchange.

As part of the Warrant Exchange Agreement, the Company agreed that through September 14, 2014 it would not offer, sell, pledge, contract to sell or otherwise dispose of any equity securities or securities convertible, exercisable or exchangeable into equity securities of the Company, except for the issuance of equity awards pursuant to the Company's employee benefit plans and employee incentive plans, the issuance of common stock pursuant to the valid exercise of options or warrants or upon exercise of conversion rights with respect to convertible securities outstanding on the date of the Warrant Exchange, and the issuance and sale of equity securities in private placements to directors or officers of the Company.

As of September 30, 2015 and December 31, 2014, there were 0 Series A Warrants and 0 Placement Agent Warrants outstanding.

Warrants Issued in Connection with SkinCare Marketing Agreement

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, with a third party marketing organization. According to the terms of the agreement as described in Note 10 below, Commitments and Contingencies, under Marketing Arrangement and Agreement, the third party marketing organization would provide assistance to LSC to sell its skin care products through various specific proprietary mailings. The agreement provides for two tranches of common stock warrants issued by the Company for the benefit of the third party marketing organization for 667 shares each, with strike prices of $225.00 and $300.00, respectively, vesting over four quarters, and a warrant term of five years. As of September 30, 2015 and December 31, 2014, there were 1,334 warrants outstanding. These warrants expire in September 2016.

Share data related to warrant transactions through September 30, 2015 were as follows:

	Common Stock	Units	Common Stock				Common Stock				Price per Warrant	
	July 2013 Financing		October 2014 Financing									
	Series A	Placement Agent	Series A	Series B	Series C	Placement Agent	Skin Care Marketing	Jan 2013 Financing	Mar 2013 Financing	Total Warrants	Range	Weighted Average Exercise Price
Outstanding, December 31, 2013	243,699	4,445	—	—	—	—	1,334	33,750	16,667	299,895	$22.50-300.00	$ 24.83
2014												
Issued			258,519	258,519	258,519	62,045				837,602	$ 8.64	$ 8.64
Exchanged	(243,699)	(4,445)								(248,144)	$ 22.50	$ 22.50
Exercised				(39,295)						(39,295)	$ 8.64	$ 8.64
Forfeited/Cancelled										—	—	—
Outstanding, December 31, 2014	—	—	258,519	219,224	258,519	62,045	1,334	33,750	16,667	850,058	$ 8.64-300.00	$ 10.31
2015												
Issued										—	$ —	$ —
Exchanged										—	$ —	$ —
Exercised				(12,409)	(157,704)					(170,113)	$ 1.79-8.64	$ 9.79
Forfeited/Cancelled				(206,815)						(206,815)	$ 11.25	$ 11.25
Outstanding, September 30, 2015	—	—	258,519	—	100,815	62,045	1,334	33,750	16,667	473,130	$ 1.79-300.00	$ 9.92

10. Commitments and Contingencies

Leases

The Company has established its primary research facility in 8,215 square feet of leased office and laboratory space in Oceanside, California. The lease for this facility expires in August 2016. The current base rent is $9,111 per month. The facility has leasehold improvements which include cGMP (current Good Manufacturing Practices) level clean rooms designed for the derivation of clinical-grade stem cells and their differentiated derivatives, research laboratories for the Company's stem cell differentiation studies and segregated rooms for biohazard control and containment of human donor tissue. The monthly base rent will increase by 3% annually on the anniversary date of the agreement.

The Company leases a 5,520 square foot manufacturing facility in Frederick, Maryland, which is used for laboratory and administrative purposes. The current base rent is $8,865. The initial term of the lease expires in December 2015 and there is an option for an additional five years. The administration space is used to support sales, marketing and accounting. The laboratory is used to develop and manufacture the Company's research products. clean rooms, water purification systems, temperature controlled storage, labeling equipment and other standard manufacturing equipment to manufacture, package, test, store, and distribute cell culture products.

On February 25, 2011, the Company entered into a lease agreement (the "Lease Agreement") with S Real Estate Holdings LLC to allow the Company to expand into new corporate offices located at 5950 Priestly Drive, Carlsbad, California. The building is used for administrative purposes, but could also be used for research and development purposes if such space is needed in the future. The lease initially covered approximately 4,653 square feet, starting on March 1, 2011, and was amended to cover approximately 8,199 square feet effective July 1, 2011, and to cover approximately 9,848 square feet effective January 1, 2013. The lease expires on February 29, 2016, subject to the Company's right to extend the term for up to five additional years. The Company began paying rent at an initial rate of $5,118 per month and the rate was amended effective July 1, 2011 and January 1, 2013 to account for additional square footage occupied by the Company. The current base rent is $12,192 per month. The monthly base rent will increase by 3% annually on the anniversary date of the agreement. The Company is also obligated to pay a portion of the utilities for the building and increases in property tax and insurance.

S Real Estate Holdings LLC is owned by Dr. Russell Kern, the Company's Chief Scientific Officer and a director, and was previously owned by Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors. The Lease Agreement was negotiated at arm's length and was reviewed by the Company's outside legal counsel. The terms of the lease were reviewed by a committee of independent directors, and the Company believes that, in total, those terms are consistent with the terms that could be obtained for comparable facilities from an unaffiliated party.

The Company incurred rent expense of $73,000 and $79,000 for the three months ended September 30, 2015 and 2014, respectively. For the nine months ended September 30, 2015 and 2014, the Company incurred rent expense of $215,000 and $236,000, respectively.

Future minimum lease payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of September 30, 2015, are as follows (in thousands):

	Amount
2015 (remaining three months)	$ 94
2016	104
2017	5
Total	$ 203

Marketing Agreement

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, superseding the terms of a previous arrangement with a third party marketing organization. According to the agreement, the third party marketing organization will continue to provide assistance to Lifeline Skin Care, Inc., ("LSC") a wholly-owned subsidiary of International Stem Cell, to sell skin care products through various specific proprietary mailings. In exchange for such services, the Company will pay 20% of net revenues for Direct Sales (as defined in the agreement) generated from the proprietary mailings. In addition, the Company agreed to pay 10% of net revenues for Referral Sales. The agreement specifies that the parties do not intend to create a joint venture, and that either party may terminate the agreement upon 30-day written notice. In addition, the agreement provided for two tranches of common stock warrants issued by the Company for the benefit of the third party marketing organization for 667 shares each, with strike prices of $225.00 and $300.00, respectively, with vesting over four quarters, and warrant term of five years. Subsequently in July 2012, the Company renegotiated the commission structure to reflect slightly lower rates, 18% on net revenues derived from direct sales and 9% on net revenues derived from referral sales. LSC incurred $2,000 and $11,000 as commission expenses during the three months ended September 30, 2015 and 2014, respectively, under the terms of this agreement. For nine months ended September 30, 2015 and 2014, the commission expenses incurred under this agreement was $10,000 and $34,000, respectively.

Customer Concentration

During the three and nine months ended September 30, 2015 for the Biomedical market segment, one customer accounted for 28% and 22% of consolidated revenues, respectively. During the three and nine months ended September 30, 2014 for the Biomedical market segment, one customer accounted for 22% and 21% of our consolidated revenues, respectively. No other single customer accounted for more than 10% of revenues for any period presented.

Vendor Concentration

During the three and nine months ended September 30, 2015 for the Cosmetic market segment, one vendor accounted for 10% and 15% of consolidated purchases, respectively. During the three and nine months ended September 30, 2014 for the Costmetic market segment, one vendor accounted for 14% and 8%, respectively. No other single vendor accounted for more than 10% of purchases for any period presented.

11. Segments and Geographic Information

The Company's chief operating decision-maker reviews financial information presented on a consolidated basis, accompanied by disaggregated information by each reportable company's statement of operations. The Company operates the business on the basis of three reporting segments, the parent company and three wholly-owned subsidiaries:

International Stem Cell Corporation, a research and development company, for the Therapeutic Market for clinical applications of hpSCs for the treatment of various diseases such as Parkinson's disease, liver diseases and corneal blindness;

Cyto Therapeutics, a research and development company, for the Therapeutic Market, which will conduct clinical trials in Australia for the use of hpSCs in the treatment of Parkinson's disease;

Lifeline Skin Care, Inc. for the Cosmetic Market, which develops, manufactures and markets a category of cosmetic skin care products based on biotechnology with human stem cells;

Lifeline Cell Technology, LLC for the Biomedical Market, which develops, manufactures and commercializes primary human cell research products including over 160 human cell culture products, including frozen human "primary" cells and the reagents (called "media") needed to grow, maintain and differentiate the cells.

Revenues, Expenses and Operating Income (loss)

The Company does not measure the performance of its segments on any asset-based metrics. Therefore, segment information is presented only for operating income (loss). Revenues, expenses and operating income (loss) by market segment were as follows (in thousands):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2015	2014	2015	2014
Revenues:				
Cosmetic market	$ 923	$ 970	$ 2,648	$ 2,519
Biomedical market	1,213	993	2,925	2,681
Total revenues	2,136	1,963	5,573	5,200
Operating expenses:				
Therapeutic market	1,180	2,458	4,732	7,067
Cosmetic market	872	837	2,361	2,410
Biomedical market	706	702	2,005	2,065
Total operating expenses	2,758	3,997	9,098	11,542
Operating income (loss):				
Therapeutic market	(1,180)	(2,458)	(4,732)	(7,067)
Cosmetic market	51	133	287	109
Biomedical market	507	291	920	616
Total operating loss	$ (622)	$(2,034)	$(3,525)	$(6,342)

Geographic Information

The Company's wholly-owned subsidiaries are located in Maryland, California, and Victoria, Australia and have customer and vendor relationships worldwide. Significant revenues in the following regions are those that are attributable to the individual countries within the region to which the product was shipped (in thousands):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2015	2014	2015	2014
North America	$ 1,674	$ 1,519	$ 4,444	$ 4,186
Asia	362	332	844	672
Europe	91	98	251	309
All other regions	9	14	34	33
Total	$ 2,136	$ 1,963	$ 5,573	$ 5,200

12. Subsequent Events

On October 9, 2015, to refinance the indebtedness incurred on September 9, 2015, the Company issued an unsecured, non-convertible promissory note in the principal amount of $2,862,000 to Dr. Andrey Semechkin in return for Dr. Semechkin (i) surrendering the note issued to him by the Company on September 9, 2015 in the principal amount of $2,862,000. On November 3, 2015, to refinance the indebtedness incurred on October 9, 2015, the Company issued an unsecured, non-convertible promissory note in the principal amount of $2,862,000 (the "Loan") to Dr. Andrey Semechkin in return for Dr. Semechkin (i) surrendering the note issued to him by the Company on October 9, 2015 in the principal amount of $2,862,000. Dr. Semechkin is the Company's

Co-Chairman and Chief Executive Officer. The principal amount under the Note accrues interest at a rate of One Half of One Percent (0.50%) per annum. The Note is due and payable January 10, 2016, but may be pre-paid by the Company without penalty at any time.

On October 10, 2015, the Company and the holders of the Series C Warrants issued in connection with the financing transaction which occurred on October 14, 2014 that remained outstanding as of October 10, 2015 (representing the right to acquire, in the aggregate, approximately 73,000 shares) amended those remaining Series C Warrants to extend the expiration date to November 14, 2015. Between October 1, 2015 and October 20, 2015, the Company received net proceeds of $162,711 upon the exercise of 100,815 of the Series C Warrants by holders of the Series C Warrants. As of October 20, 2015, all remaining Series C Warrants were fully exercised. Additionally, between October 20, 2015 and October 27, 2015, the Company received net proceeds of $333,792 upon the exercise of 206,814 of the Series A Warrants by holders of the Series A Warrants.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

INTERNATIONAL STEM CELL CORPORATION AND SUBSIDIARIES

We have audited the accompanying consolidated balance sheets of International Stem Cell Corporation and Subsidiaries ("the Company") as of December 31, 2014 and 2013, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of International Stem Cell Corporation and Subsidiaries as of December 31, 2014 and 2013, and the consolidated results of their operations and their cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has incurred recurring operating losses and is dependent on additional financing to fund operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are described in Note 1 to the consolidated financial statements. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ Mayer Hoffman McCann P.C.

MAYER HOFFMAN MCCANN P.C.
San Diego, California
March 27, 2015

Table of Contents

International Stem Cell Corporation and Subsidiaries
Consolidated Balance Sheets
(in thousands, except share data)

	December 31, 2014	December 31, 2013
Assets		
Cash and cash equivalents	$ 1,111	$ 2,243
Accounts receivable, net of allowance for doubtful accounts of $19 at December 31, 2014 and December 31, 2013	453	306
Inventory, net	1,517	1,369
Prepaid expenses and other current assets	485	658
Restricted cash	50	50
Total current assets	3,616	4,626
Property and equipment, net	714	830
Intangible assets, net	2,795	2,250
Deposits and other assets	54	33
Total assets	$ 7,179	$ 7,739
Liabilities, Redeemable Preferred Stock and Stockholders' Equity (Deficit)		
Accounts payable	$ 670	$ 532
Accrued liabilities	1,711	1,290
Deferred revenue	—	3
Related party payable	11	21
Advances	250	250
Fair value of warrant liability	4,216	4,925
Total current liabilities	6,858	7,021
Convertible Redeemable Series G Preferred stock, $0.001 par value, 0 and 5,000,000 shares authorized, issued and outstanding at December 31, 2014 and December 31, 2013, respectively, liquidation preference of $0 and $5,000 at December 31, 2014 and December 31, 2013, respectively	—	4,941
Commitments and contingencies		
Stockholders' Equity (Deficit)		
Series B Convertible Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding at December 31, 2014 and December 31, 2013, with liquidation preferences of $421 and $403 at December 31, 2014 and December 31, 2013, respectively	—	—
Series D Convertible Preferred stock, $0.001 par value, 50 shares authorized, 43 issued and outstanding at December 31, 2014 and December 31, 2013, with liquidation preference of $4,320 at December 31, 2014 and December 31, 2013	—	—
Series G Convertible Preferred stock, $0.001 par value, 5,000,000 and 0 shares authorized, issued and outstanding at December 31, 2014 and December 31, 2013, respectively, liquidation preference of $5,000 and $0 at December 31, 2014 and		

December 31, 2013, respectively	5	—
Series H-1 Convertible Preferred stock, $0.001 par value, 2,000 and 0 shares authorized, 1,482 and 0 issued and outstanding at December 31, 2014 and December 31, 2013, respectively	—	—
Series H-2 Convertible Preferred stock, $0.001 par value, 500 and 0 shares authorized, 500 and 0 issued and outstanding at December 31, 2014 and December 31, 2013, respectively	—	—
Common stock, $0.001 par value, 720,000,000 and 300,000,000 shares authorized at December 31, 2014 and December 31, 2013, respectively, 239,429,170 and 151,175,053 shares issued and outstanding at December 31, 2014 and December 31, 2013, respectively	239	151
Additional paid-in capital	94,826	77,897
Accumulated deficit	(94,749)	(82,271)
Total stockholders' equity (deficit)	321	(4,223)
Total liabilities, redeemable preferred stock and stockholders' equity (deficit)	$ 7,179	$ 7,739

See accompanying notes to the consolidated financial statements.

Table of Contents

International Stem Cell Corporation and Subsidiaries
Consolidated Statements of Operations
(in thousands, except per share data)

	Years Ended December 31,	
	2014	2013
Revenues		
Product sales	$ 7,017	$ 6,147
Total revenue	7,017	6,147
Expenses		
Cost of sales	1,921	1,643
Research and development	5,386	3,560
Selling and marketing	2,785	2,457
General and administrative	5,605	6,033
Total expenses	15,697	13,693
Loss from operating activities	(8,680)	(7,546)
Other income (expense)		
Change in fair value of warrant liability	2,405	(754)
Fair value of warrant liability in excess of proceeds	(1,780)	(1,390)
Financing transaction costs	(997)	(738)
Warrant exchange inducement expense	(3,445)	—
Interest expense	(2)	(3)
Sublease income	30	26
Miscellaneous expense	(9)	(74)
Total other expense, net	(3,798)	(2,933)
Loss before income taxes	(12,478)	(10,479)
Provision for income taxes	—	—
Net loss	$(12,478)	$(10,479)
Net loss applicable to common stockholders	$(12,478)	$(10,479)
Net loss per common share-basic and diluted		

	$ (0.06)	$ (0.09)
Weighted average shares-basic and diluted	192,795	123,088

See accompanying notes to the consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)
For the Years Ended December 31, 2014 and 2013
(in thousands)

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock							
					Series B		Series C		Series D		Series G	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Balance at December 31, 2012	5,000	$ 4,941	87,389	$ 87	300	$ —	2,000	$ 2	—	$ —	—	$ —
Issuance of common stock from conversion of Series C preferred stock			8,000	8			(2,000)	(2)				
Issuance of common stock												
For cash, net of issuance costs of $178			37,991	38								
For services			840	1								
From exercises of warrants, net of commissions of $98			16,955	17								
Stock-based compensation												
Net loss for the year ended December 31, 2013												
Balance at December 31, 2013	5,000	4,941	151,175	151	300	—	—	—	—	—	—	—
Issuance of common stock												
For cash, net of issuance costs of $169			27,598	27								
For services			1,096	1								
From exercises of warrants			5,894	6								
For warrant exchange, net of issuance costs of $49			44,666	45								
Issuance of preferred stock												
Conversion of Series H-1 preferred stock			9,000	9								
Stock-based compensation												
Waiver of redemption feature for Series G preferred stock	(5,000)	(4,941)									5,000	5
Net loss for the period ended December 31, 2014												
Balance at December 31, 2014	—	$ —	239,429	$ 239	300	$ —	—	$ —	—	$ —	5,000	$ 5

See accompanying notes to the consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)
For the Years Ended December 31, 2014 and 2013
(in thousands)

	Convertible Preferred Stock				Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Series H-1		Series H-2				
	Shares	Amount	Shares	Amount			
Balance at December 31, 2012	—	$ —	—	$ —	$ 69,945	$ (71,792)	$ (1,758)
Issuance of common stock from conversion of Series C preferred stock					(6)		—
Issuance of common stock							
For cash, net of issuance costs of $178					3,343		3,381
For services					239		240
From exercises of warrants, net of commissions of $98					2,683		2,700
Stock-based compensation					1,693		1,693
Net loss for the year ended December 31, 2013						(10,479)	(10,479)
Balance at December 31, 2013	—	—	—	—	77,897	(82,271)	(4,223)
Issuance of common stock							
For cash, net of issuance costs of $169					3,573		3,600
For services					190		191
From exercises of warrants					438		444
For warrant exchange, net of issuance costs of $49					6,383		6,428
Issuance of preferred stock	2		1				—
Conversion of Series H-1 preferred stock	(1)				(9)		—
Stock-based compensation					1,418		1,418
Waiver of redemption feature for Series G preferred stock					4,936		4,941
Net loss for the period ended December 31, 2014						(12,478)	(12,478)
Balance at December 31, 2014	1	$ —	1	$ —	$ 94,826	$ (94,749)	$ 321

See accompanying notes to the consolidated financial statements.

Table of Contents

International Stem Cell Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)

	Years Ended Years Ended December 31, 2014	2013
Cash flows from operating activities		
Net loss	$ (12,478)	$ (10,479)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	458	464
Stock-based compensation expense	1,538	1,693
Common stock issued for services	191	240
Fair value of warrant liability in excess of proceeds	1,780	1,390
Financing transaction costs	552	738
Change in fair value of warrant liability	(2,405)	754
Warrant exchange inducement expense	3,445	—
Allowance for doubtful accounts	—	23
Allowance for inventory obsolescence	67	90
Allowance for sales returns	—	10
Loss on disposal of fixed assets	9	68
Impairment of intangible assets	92	52
Changes in operating assets and liabilities		
(Increase) decrease in accounts receivable	(147)	(55)
(Increase) decrease in inventory	(215)	(260)
(Increase) decrease in prepaid assets and other assets	173	(202)
(Increase) decrease in restricted cash	—	(50)
(Increase) decrease in deposits	(21)	(13)
Increase (decrease) in accounts payable	138	(437)
Increase (decrease) in accrued liabilities	421	550
Increase (decrease) in deferred revenue	(3)	(230)
Increase (decrease) in related party payable	(10)	16

Net cash used in operating activities	(6,415)	(5,638)
Investing activities		
Purchases of property and equipment	(290)	(167)
Proceeds from sale of property and equipment	1	—
Payments for patent licenses and trademarks	(698)	(729)
Net cash used in investing activities	(987)	(896)
Financing activities		
Proceeds from issuance of common stock	3,649	6,538
Proceeds from issuance of preferred stock	2,500	—
Proceeds from exercise of warrants and options	339	2,386
Payment of offering costs	(218)	(801)
Net cash provided by financing activities	6,270	8,123
Net increase (decrease) in cash and cash equivalents	(1,132)	1,589
Cash and cash equivalents, beginning of period	2,243	654
Cash and cash equivalents, end of period	$ 1,111	$ 2,243
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 2	$ 3
Warrant liability reclassified to equity upon warrant exchange	$ 3,031	$ —
Warrants issued for placement agent services	$ 552	$ 115

See accompanying notes to the consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
Notes to Consolidated Financial Statements

1. Organization and Significant Accounting Policies

Business Combination and Corporate Restructure

BTHC III, Inc. ("BTHC III" or the "Company") was organized in Delaware in June 2005 as a shell company to effect the reincorporation of BTHC III, LLC, a Texas limited liability company. On December 28, 2006, the Company effected a Share Exchange pursuant to which it acquired all of the stock of International Stem Cell Corporation, a California corporation ("ISC California"). After giving effect to the Share Exchange, the stockholders of ISC California owned 93.7% of issued and outstanding shares of common stock. As a result of the Share Exchange, ISC California is now the wholly-owned subsidiary, though for accounting purposes it was deemed to have been the acquirer in a "reverse merger." In the reverse merger, BTHC III is considered the legal acquirer and ISC California is considered the accounting acquirer. On January 29, 2007, the Company changed its name from BTHC III, Inc. to International Stem Cell Corporation.

Lifeline Cell Technology, LLC ("LCT") was formed in the State of California on August 17, 2001. LCT is in the business of developing and manufacturing purified primary human cells and optimized reagents for cell culture. LCT's scientists have used a technology, called basal medium optimization, to systematically produce products designed to culture specific human cell types and to elicit specific cellular behaviors. These techniques also produce products that do not contain non-human animal proteins, a feature desirable to the research and therapeutic markets. LCT distinguishes itself in the industry by having in place scientific and manufacturing staff with the experience and knowledge to set up systems and facilities to produce a source of consistent, standardized, non-human animal protein free cell products, some of which are suitable for FDA approval.

On July 1, 2006, LCT entered into an agreement among LCT, ISC California and the holders of membership units and warrants. Pursuant to the terms of the agreement, all the membership units in LCT were exchanged for 20,000,000 shares of ISC California Common Stock and for ISC California's assumption of LCT's obligations under the warrants. LCT became a wholly-owned subsidiary of ISC California.

Lifeline Skin Care, Inc. ("LSC") was formed in the State of California on June 5, 2009 and is a wholly-owned subsidiary of ISC California. LSC develops, manufactures and markets cosmeceutical products, utilizing an extract derived from the Company's human parthenogenetic stem cell technologies.

Going Concern

The Company needs to raise additional working capital. The timing and degree of any future capital requirements will depend on many factors. Currently, the Company's burn rate is approximately $535,000 per month, excluding capital expenditures and patent costs averaging $82,000 per month. There can be no assurance that the Company will be successful in maintaining its normal operating cash flow, and that such cash flows will be sufficient to sustain the Company's operations through 2015. Based on the above, there is substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements were prepared assuming that the Company is a going concern. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

Management's plans in regard to these matters are focused on managing its cash flow, the proper timing of its capital expenditures, and raising additional capital or financing in the future. In December 2013, the Company filed a registration statement with the Securities Exchange Commission (the "SEC"), which allows the Company to sell up to $10,250,000 of common stock to Lincoln Park Capital Fund, LLC ("Lincoln Park") from time to time through January 2017 at the Company's discretion pursuant to the terms of a Common Stock Purchase Agreement entered into with Lincoln Park on December 10, 2013 (the "Purchase Agreement"). The registration

statement was declared effective on January 13, 2014. However, the Company cannot predict the timing or amount of any funds that it may actually receive. During the year ended December 31, 2014, to obtain funding for working capital purposes, the Company sold a total of 8,200,000 shares of common stock under the Purchase Agreement with Lincoln Park, raising approximately $1,588,000. For further discussion, see Note 6, Capital Stock. In connection with agreements entered into as part of a private placement effected October 14, 2014, the Company may not sell shares to Lincoln Park until March 2016. Additionally, pursuant to the terms of the October 2014 private placement, the Company may not issue securities, subject to certain exceptions, until May 7, 2015 (the 90th day following the effective date of the last registration statement on Form S-1 registering all Registrable Securities (as defined in the registration rights agreement, as amended, entered into in connection with the Securities Purchase Agreement)), provided, however, that the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers and directors at market prices. For further discussion, see Note 6.

Basis of Presentation

The Company is a biotechnology company focused on therapeutic and clinical product development with multiple long-term therapeutic opportunities and two revenue-generating subsidiaries with potential for increased future revenues. The Company has been in the development stage from inception through to the quarter ended September 30, 2013. During the quarter ended December 31, 2013, the Company exited the development stage based on a consistent, increasing revenue trend and more significant revenue amounts generated from its two commercial businesses. The Company has generated product revenues from the two commercial businesses of $7,017,000 and $6,147,000 for the years ended December 31, 2014 and 2013, respectively. The Company currently has no revenue generated from its principal operations in therapeutic and clinical product development through research and development efforts.

Principles of Consolidation

The Company's consolidated financial statements include the accounts of International Stem Cell Corporation and its subsidiaries after intercompany balances and transactions have been eliminated.

Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents.

Restricted Cash

The Company is required to maintain $50,000 in a restricted certificate of deposit account in order to fully collateralize two revolving credit card accounts.

Inventories

We account for inventory using the first-in, first-out (FIFO) method for our Lifeline Cell Technology cell culture media and reagents, average cost and specific identification methods for our Lifeline Skin Care products, and specific identification method for our Lifeline Cell Technology products. We state our inventory balances at the lower of cost or market. Lab supplies used in the research and development process are expensed as consumed. Inventory is reviewed periodically for product expiration and obsolescence and is adjusted accordingly.

Accounts Receivable

Trade accounts receivable are recorded at the net invoice value and are not interest bearing. Accounts receivable primarily consist of trade accounts receivable from the sales of LCT's products, timing of cash receipts by the

Company related to LSC credit card sales to customers, as well as LSC trade receivable amounts related to spa and distributor sales. The Company considers receivables past due based on the contractual payment terms. The Company reviews its exposure to accounts receivable and reserves specific amounts if collectability is no longer reasonably assured. As of December 31, 2014 and 2013, the Company had an allowance for doubtful accounts of $19,000.

Property and Equipment

Property and equipment are stated at cost. The provision for depreciation and amortization is computed using the straight-line method over the estimated useful lives of the assets, generally over five years. The costs of major remodeling and leasehold improvements are capitalized and amortized over the shorter of the remaining term of the lease or the life of the asset.

Intangible Assets

Intangible assets consist of acquired research and development rights used in research and development, and capitalized legal fees related to the acquisition, filing, maintenance, and defense of patents. Patent or patent license amortization only begins once a patent license is acquired or a patent is issued by the appropriate authoritative bodies. In the period in which a patent application is rejected or efforts to pursue the patent are abandoned, all the related accumulated costs are expensed. Patents and patent licenses are recorded at cost of $3,367,000 and $2,760,000 at December 31, 2014 and 2013, respectively, and are amortized on a straight-line basis over the shorter of the lives of the underlying patents or the useful life of the license. Amortization expense for the years ended December 31, 2014 and 2013 amounted to $62,000 and $61,000, respectively, and is included in research and development expense. Accumulated amortization as of December 31, 2014 and 2013 was $572,000 and $510,000, respectively. Additional information regarding patents and patent licenses is included in Note 4.

Long-Lived Asset Impairment

The Company reviews long-lived assets for impairment when events or changes in business conditions indicate that their carrying value may not be recovered, and at least annually. The Company considers assets to be impaired and writes them down to fair value if expected associated undiscounted cash flows are less than the carrying amounts. Fair value is the present value of the associated cash flows. The Company recognized $92,000 and $52,000 of impairment losses on its long-lived assets during the years ended December 31, 2014 and 2013, respectively.

Product Sales

The Company recognizes revenue from product sales at the time of shipment to the customer, provided no significant obligations remain and collection of the receivable is reasonably assured. If the customer has a right of return, the Company recognizes product revenues upon shipment, provided that future returns can be reasonably estimated. In the case where returns cannot be reasonably estimated, revenue will be deferred until such estimates can be made or the right of return has lapsed. LCT contributed 50% and 48% of total revenue in 2014 and 2013, respectively. LSC's revenue accounted for 50% and 52% of total revenue in 2014 and 2013, respectively.

Deferred Revenue and Allowance for Sales Returns

The Company recognizes revenue from product sales when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price to the buyer is fixed or determinable, and collectability is reasonably assured. However, the LSC products have a 30-day product return guarantee for website sales. The Company has estimated the historical rate of returns for the 30-day product return guarantee,

which has remained consistent for the year ended December 31, 2014 as compared to the years ended December 31, 2013 and 2012. At December 31, 2014 and December 31, 2013, the estimated allowance for sales returns was $10,000. At December 31, 2014 and December 31, 2013, net deferred revenue totaled $0 and $3,000, respectively.

Cost of Sales

Cost of sales consists primarily of salaries and benefits associated with employee efforts expended directly on the production of the Company's products and include related direct materials, general laboratory supplies and allocation of overhead. Certain of the agreements under which the Company has licensed technology will require the payment of royalties based on the sale of its future products. Such royalties will be recorded as a component of cost of sales. Additionally, the amortization of license fees or milestone payments related to developed technologies used in the Company's products will be classified as a component of cost of sales to the extent such payments become due in the future.

Research and Development Costs

Research and development costs, which are expensed as incurred, are primarily comprised of costs and expenses for salaries and benefits associated with research and development personnel, overhead and occupancy, contract services, and amortization of license costs for technology used in research and development with alternative future uses.

Registration Payment Arrangements

In accordance with applicable authoritative guidance, the Company is required to separately recognize and measure registration payment arrangements, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement. Such payments include penalties for failure to effect a registration of securities.

Stock-Based Compensation

The Company recognized stock-based compensation expense associated with stock options and other stock-based awards in accordance with the authoritative guidance for stock-based compensation. The cost of a stock-based award is measured at the grant date based on the estimated fair value of the award, and is recognized as expense on a straight-line basis, net of estimated forfeitures over the requisite service period of the award. The fair value of stock options is estimated using the Black-Scholes option valuation model, which requires the input of subjective assumptions, including price volatility of the underlying stock, risk-free interest rate, dividend yield, and expected life of the option. The fair value of restricted stock awards is based on the market value of our common stock on the date of grant.

Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. Assets and liabilities that are measured at fair value are reported using a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
Level 2	Quoted prices in markets that are not active, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability; and
Level 3	Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

The table below sets forth a summary of the fair values of the Company's assets and liabilities as of December 31, 2014 (in thousands).

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$ 5	$ 5	$ —	$ —
LIABILITIES:				
Warrants to purchase common stock	$4,216	$ —	$ —	$4,216

The table below sets forth a summary of the fair values of the Company's assets and liabilities as of December 31, 2013 (in thousands).

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$ 5	$ 5	$ —	$ —
LIABILITIES:				
Warrants to purchase common stock	$4,925	$ —	$ —	$4,925

The following table displays the rollforward activity of liabilities with inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity) (in thousands):

	Warrants to purchase common stock
Beginning balance at December 31, 2012	$ —
Issuances of warrants	5,986
Exercise of warrants	(1,815)
Adjustments to estimated fair value	754
Ending balance at December 31, 2013	4,925
Issuances of warrants	4,831
Exercise of warrants	(104)
Adjustments to estimated fair value	(2,405)
Warrants exchanged for common stock	(3,031)
Ending balance at December 31, 2014	$ 4,216

Income Taxes

The Company accounts for income taxes in accordance with applicable authoritative guidance, which requires the Company to provide a net deferred tax asset/liability equal to the expected future tax benefit/expense of temporary reporting differences between book and tax accounting methods and any available operating loss or tax credit carryforwards.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. Significant estimates include patent life (remaining legal life

versus remaining useful life), inventory balances (lower of cost or market), and transactions using the Black-Scholes option pricing model, e.g., warrants and stock options, as well as Monte-Carlo valuation method for certain warrants. Actual results could differ from those estimates.

Fair Value of Financial Instruments

The Company believes that the carrying value of its cash and cash equivalents, receivables, accounts payable and accrued liabilities as of December 31, 2014 and 2013 approximate their fair values because of the short-term nature of those instruments. The fair value of certain warrants was determined at each quarterly reporting date as necessary in 2014 and 2013 using the Monte-Carlo valuation methodology.

Income (Loss) Per Common Share

The computation of net loss per common share is based on the weighted average number of shares outstanding during each period. The computation of diluted earnings per common share is based on the weighted average number of shares outstanding during the period plus the common stock equivalents, which would arise from the exercise of stock options and warrants outstanding using the treasury stock method and the average market price per share during the period. At December 31, 2014, there were 145,000 non-vested restricted stock awards, 21,102,855 vested and 7,826,075 non-vested stock options outstanding, and 127,508,118 warrants outstanding, which were convertible into 127,508,118 shares of common stock; and at December 31, 2013, there were 145,000 non-vested restricted stock awards, 44,983,988 warrants, which were convertible into 45,650,654 shares of common stock and 18,958,403 vested and 4,679,290 non-vested stock options outstanding. These restricted stock awards, stock options and warrants were not included in the diluted loss per share calculation because the effect would have been anti-dilutive.

Comprehensive Income

Comprehensive income or loss includes all changes in equity except those resulting from investments by owners and distributions to owners. The Company did not have any items of comprehensive income or loss other than net loss from operations for the years ended December 31, 2014 and 2013.

Recent Accounting Pronouncements

In August 2014, the Financial Accounting Standards Board (the "FASB") issued ASU No. 2014-15, Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern, which is intended to define management's responsibility to evaluate whether there is substantial doubt about an organization's ability to continue as a going concern and to provide related footnote disclosures. The ASU provides guidance to an organization's management, with principles and definitions that are intended to reduce diversity in the timing and content of disclosures that are commonly provided by organizations today in the financial statement footnotes. The amendments are effective for annual periods ending after December 15, 2016, and interim periods within annual periods beginning after December 15, 2016. Early adoption is permitted for annual or interim reporting periods for which the financial statements have not previously been issued. The Company does not intend to early adopt this standard. The adoption of this standard will not have an impact on the financial condition of the Company.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The new standard is effective for the Company on January 1, 2017. Early application is not permitted. The standard permits the use of either the retrospective or cumulative effect transition method. The Company is evaluating the effect that ASU 2014-09 will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor has it determined the effect of the standard on its ongoing financial reporting.

2. Inventory

We account for inventory using the first-in, first-out (FIFO) method for our Lifeline Cell Technology cell culture media and reagents, average cost and specific identification methods for our Lifeline Skin Care products, and specific identification method for our Lifeline Cell Technology products. We state our inventory balances at the lower of cost or market. Lab supplies used in the research and development process are expensed as consumed. Inventory is reviewed periodically for product expiration and obsolescence and is adjusted accordingly. The components of inventories are as follows (in thousands):

	December 31, 2014	December 31, 2013
Raw materials	$ 191	$ 147
Work in process	507	446
Finished goods	1,012	902
Total	1,710	1,495
Less: allowance for inventory obsolescence	(193)	(126)
Inventory, net	$ 1,517	$ 1,369

3. Property and Equipment

Property and equipment consists of the following (in thousands):

	December 31, 2014	December 31, 2013
Machinery and equipment	$ 1,357	$ 1,170
Computer equipment	294	246
Office equipment	203	203
Leasehold improvements	756	745
	2,610	2,364
Less: accumulated depreciation and amortization	(1,896)	(1,534)
Property and equipment, net	$ 714	$ 830

Depreciation expense for the years ended December 31, 2014 and 2013 were $396,000 and $403,000, respectively.

4. Patent Licenses

On December 31, 2003, LCT entered into an *Option to License Intellectual Property* agreement with Advanced Cell Technology, Inc. (now called Ocata Therapeutics, Inc.) for patent rights and paid ACT $340,000 in option and license fees. On February 13, 2004, LCT and ACT amended the Option agreement and LCT paid ACT additional option fees of $22,500 for fees related to registering ACT's patents in selected international countries.

On May 14, 2004, LCT amended the licensing agreement with ACT for the exclusive worldwide patent rights for the following ACT technologies: UMass IP, ACT IP and Infigen IP. The additional license fees paid were $400,000.

On February 7, 2013, the Company and ACT entered into Amended and Restated License Agreements (the "Amendment") for the purpose of completely amending and restating the terms of the license agreements. Under the terms of the Amendment, the Company acquired exclusive world-wide rights to all human therapeutic uses and cosmetic uses from ATC and Infigen's early work on parthenogenic-derived embryonic stem cells, as well as certain rights to patents covering Single Blastomere technology.

Pursuant to the Amendment, all minimum R&D requirements and all milestone payments due to ACT under the Exclusive License Agreement have been eliminated. The Company will no longer pay any royalties under the ACT IP Agreement and Infigen IP Agreement. The obligation to pay royalties that ranged from 6%-12% under the UMass IP Agreement has been reduced to 0.25% of the net sales of products using technology covered by the UMass IP Agreement; and the obligation to pay a minimum annual license fee of $150,000 has been reduced to $75,000 annually, payable in two installments to ACT. Total license fees paid were $75,000 for the years ended December 31, 2014 and 2013.

As of December 31, 2014, the total amounts capitalized related to the acquired ACT licenses were $747,000, and $2,576,000 related to other patent acquisition costs.

At December 31, 2014, future amortization expense related to the intangible assets subject to amortization is expected to be as follows (in thousands):

	Amount
2015	$ 62
2016	62
2017	62
2018	62
2019	29
Thereafter	2,473
Total	$ 2,750

5. Advances

On June 18, 2008, the Company entered into an agreement with BioTime, Inc. (“BioTime”), where BioTime will pay an advance of $250,000 to Lifeline Cell Technology, a wholly-owned subsidiary of International Stem Cell Corporation, to produce, make, and distribute Joint Products. The $250,000 advance will be paid down with the first $250,000 of net revenues that otherwise would be allocated to LCT under the agreement. As of December 31, 2014, no revenues were realized from this agreement.

	December 31, 2014	December 31, 2013
BioTime, Inc. (in thousands)	$ 250	$ 250

6. Capital Stock

As of December 31, 2014, the Company is authorized to issue 720,000,000 shares of common stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share.

Preferred Stock Transactions

Series B Preferred Stock

On May 12, 2008, to obtain funding for working capital, the Company entered into a series of subscription agreements with five accredited investors for the sale of a total of 400,000 Series B Units, each Series B Unit consisting of one share of Series B Preferred Stock (“Series B Preferred”) and two Series B Warrants (“Series B Warrants”) to purchase common stock for each $1.00 invested.

The total purchase price received by the Company was $400,000. The Series B Preferred is convertible into shares of common stock at the initial conversion ratio of two shares of common stock for each share of Series B Preferred converted (which was established based on an initial conversion price of $0.50 per share), and the

Series B Warrants were exercisable at $0.50 per share until five years from the issuance of the Series B Warrants, which expired unexercised in May 2013. The Series B Preferred contain anti-dilution clauses whereby, if the Company issues equity securities or securities convertible into equity at a price below the conversion price of the Series B Preferred, such conversion price shall be adjusted downward to equal the price of the new securities. In October 2014, the Company issued Preferred Stock which had an initial conversion price of $0.06447, which in November 2014 was adjusted down further to $0.0576. Accordingly, these transactions triggered an adjustment in the current conversion price of the Series B Preferred to $0.0576 per share. The Series B Preferred has a priority (senior to the shares of common stock and Series H Preferred) on any sale or liquidation of the Company equal to the purchase price of the Series B Units, plus a liquidation premium of 6% per year. If the Company elects to declare a dividend in any year, it must first pay to the Series B Preferred holder a dividend equal to the amount of the dividend the Series B Preferred holder would receive if the Series B Preferred were converted just prior to the dividend declaration. Each share of Series B Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. As of December 31, 2014 and 2013, there were 300,000 shares of the Series B Preferred issued and outstanding.

Series C Preferred Stock

On August 20, 2008, 700,000 shares of Series C Preferred Stock ("Series C Preferred") were sold, and 1,300,000 shares of Series C Preferred were sold on September 23, 2008 all at a price of $1.00 per Series C Preferred share. The Series C Preferred was convertible into shares of common stock at $0.25 per share. All the Series C Preferred was issued to X-Master Inc., which is a related party and affiliated with the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin, and Dr. Ruslan Semechkin, Chief Scientific Officer and a director.

As of December, 2014 and 2013, there were 0 shares of the Series C Preferred issued and outstanding. On January 22, 2013, the holders of Series C Preferred converted all of the outstanding shares of Series C Preferred into common stock at $0.25 per share, or a total of 8,000,000 shares of common stock.

On April 10, 2013, the Company filed a Certificate of Elimination for the Series C Preferred stock. The Certificate of Elimination amended the provisions of the Certificate of Incorporation of the Company to eliminate the powers, designations, preferences, privileges and other rights of the Series C Preferred stock.

Series D Preferred Stock

On December 30, 2008, the Company entered into a Series D Preferred Stock Purchase Agreement (the "Series D Agreement") with accredited investors (the "Investors") and sold 43 shares of Series D Preferred Stock ("Series D Preferred") for total proceeds of $4,700,000 at a price of $100,000 per Series D Preferred share.

10 shares of the Series D Preferred were issued to X-Master Inc., which is a related party and affiliated with the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin and Dr. Ruslan Semechkin, Chief Scientific Officer and a director; and 33 shares of the Series D Preferred were issued to Dr. Andrey Semechkin. As of December 31, 2014 and 2013, there were 43 shares of the Series D Preferred issued and outstanding.

The Series D Preferred was initially convertible into shares of common stock at $0.25 per share, resulting in an initial conversion ratio of 400,000 shares of common stock for every share of Series D Preferred. The Series D Preferred has an anti-dilution clause whereby, if the Company issues equity securities or securities convertible into equity at a price below the conversion price of the Series D Preferred, the conversion price of the Series D Preferred shall be adjusted downward to equal the price of the new securities. The Series D Preferred has priority over the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series D Preferred.

In October 2014, the Company issued Preferred Stock which had an initial conversion price of $0.06447, which in November 2014 was adjusted down further to $0.0576. Accordingly, these transactions triggered an adjustment in the current conversion price of the Series D Preferred to $0.0576.

Series G Preferred Stock

On March 9, 2012, the Company entered into a Series G Preferred Stock Purchase Agreement (the "Series G Agreement") with AR Partners, LLC (the "Purchaser") to sell 5,000,000 shares of Series G Preferred Stock ("Series G Preferred") at a price of $1.00 per Series G Preferred share, for a total purchase price of $5,000,000. The Purchaser is an affiliate of Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, and Dr. Ruslan Semechkin, Chief Scientific Officer and a director.

The Series G Preferred was initially convertible into shares of common stock at $0.40 per share, resulting in an initial conversion ratio of 2.5 shares of common stock for every share of Series G Preferred. The conversion price may be adjusted for stock splits and other combinations, dividends and distributions, recapitalizations and reclassifications, exchanges or substitutions and is subject to a weighted-average adjustment in the event of the issuance of additional shares of common stock below the conversion price.

The Series G Preferred shares have priority over the Series B Preferred, Series H Preferred and common stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series G Preferred, but such payment may be made only after payment in full of the liquidation preferences payable to holders of any shares of Series D Preferred then outstanding. Each share of Series G Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. As long as there are at least 1,000,000 shares of Series G Preferred outstanding, the holders of Series G Preferred have (i) the initial right to propose the nomination of two members of the Board, at least one of which such nominees shall be subject to the approval of the Company's independent directors, for election by the stockholder's at the Company's next annual meeting of stockholders, or, elected by the full board of directors to fill a vacancy, as the case may be, and (ii) the right to approve any amendment to the certificate of incorporation, certificates of designation or bylaws, in manner adverse to the Series G Preferred, alter the percentage of board seats held by the Series G Preferred directors or increase the authorized number of shares of Series G Preferred. At least one of the two directors nominated by holders of the Series G Preferred shall be independent based on the NASDAQ listing requirements.

The Company determined that the Series G Preferreds had a contingent redemption feature allowing redemption by the holder under only some very limited circumstances ("deemed liquidation events"). As the event that could have triggered the redemption of the convertible preferred stock was not solely within the Company's control, the convertible preferred stock was classified as mezzanine equity (outside of permanent equity) on the Company's consolidated balance sheet. Additionally, legal costs related to the Series G Preferred financing in the amount of $59,000 were recorded in the mezzanine equity as well. On December 31, 2014, the Company entered into a Waiver Agreement with all of the holders of its Series G Preferred Stock, whereby the holders irrevocably and unconditionally waived all rights they held to require the Company to redeem any or all shares of the Series G Preferred Stock and to receive any payments and any other rights accruing to them by reason of the failure of the Company to redeem shares of Series G Preferred Stock, pursuant to the terms of the Series G Certificate of Designation. Holders of Series G Preferred Stock are Dr. Andrey Semechkin and Dr. Ruslan Semechkin, each of whom is a director and executive officer of the Company, and affiliated entities of Dr. Andrey Semechkin and Dr. Ruslan Semechkin. Subsequent to the signing of the Waiver Agreement, the Series G Preferred Stock will be classified within permanent equity on the Company's consolidated balance sheet.

As of December 31, 2014 and 2013, there were 5,000,000 shares of the Series G Preferred issued and outstanding.

In October 2014, the Company issued Preferred Stock which had an initial conversion price of $0.06447, which in November 2014 was adjusted down further to $0.0576. Accordingly, these transactions triggered an adjustment in the current conversion price and conversion ratio of the Series G Preferred to $0.1981 per share and 5.048 shares, respectively.

Series H Preferred Stock

On October 14, 2014, pursuant to a securities purchase agreement (the "Securities Purchase Agreement"), dated as of October 7, 2014, with Sabby Healthcare Volatility Master Fund, Ltd., Sabby Volatility Warrant Master Fund, Ltd., and Andrey and Ruslan Semechkin, the Company's Chief Executive Officer and Co-Chairman and Chief Scientific Officer and Director, respectively, (together, the "Purchasers"), the Company sold in a private placement (the "Private Placement") (i) 2,000 shares of Series H-1 and 500 shares of Series H-2 Convertible Preferred Stock, par value $0.001 with a stated value of $1,000 per share (the "Series H Preferred Stock"), convertible into 38,777,726 shares of common stock at an initial conversion price of $0.06447, (ii) Series A warrants (the "Series A Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.0921 per share exercisable immediately and having a term of 5.5 years, (iii) Series B warrants (the "Series B Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.06447 per share exercisable immediately and having a term of 6 months, (iv) Series C warrants (the "Series C Warrants", together with the Series A Warrants and the Series B Warrants, collectively, the "Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.06447 per share exercisable immediately and having a term of 12 months. The aggregate initial gross proceeds received from this transaction were $2.5 million.

The number of shares issuable upon conversion of the Series H Preferred Stock and exercise of the Warrants are adjustable in the event of stock splits, stock dividends, combinations of shares and similar transactions, and pursuant to anti-dilution provisions. In addition, Purchasers have been granted rights of participation in future offerings of our securities for eighteen months.

The Securities Purchase Agreement entered into in the Private Placement requires the Company to hold a special meeting of stockholders to seek stockholder approval of an increase in the number of authorized shares of common stock under the Company's certificate of incorporation to 720,000,000 shares and approve a reverse stock split. In connection with the Private Placement, the Company also entered into a registration rights agreement, as amended, with the investors pursuant to which the Company is obligated to file registration statements to register the resale of (i) 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock, and (ii) 100% of the shares of common stock issuable upon exercise of the warrants. In addition to the registration rights, the Purchasers are entitled to receive liquidated damages upon the occurrence of a number of events relating to filing, getting effective and maintaining effective registration statements covering the shares underlying the Series H Preferred Stock and the Warrants, including the failure of the Company to file a resale registration statement registering 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock by no later than November 13, 2014 and the failure of the Company to have such resale registration statement declared effective by the Securities and Exchange Commission (the "SEC") by no later than December 13, 2014, subject to certain exceptions. The Company filed such registration statement on November 3, 2014 and such registration was declared effective by the SEC on November 25, 2014. Further, on January 16, 2015, the Company filed a registration statement registering 100% of the shares of common stock issuable upon exercise of the warrants, which was declared effective by the SEC on February 6, 2015.

Subject to certain ownership limitations with respect to the Series H-1 Preferred Stock, the Series H Preferred Stock is convertible at any time into shares of Common Stock at an initial conversion price of $0.06447 per share. The Series H Preferred Stock is non-voting, is only entitled to dividends in the event that dividends are paid on the Common Stock, and will not have any preferences over the Common Stock, except that the Series H Preferred Stock shall have preferential liquidation rights over the Common Stock. Other than the Series H-1

Preferred Stock having a beneficial ownership limitation, the Series H-1 Preferred Stock and Series H-2 Preferred Stock are substantially identical. The conversion price of the Series H Preferred Stock is subject to certain resets as set forth in the Certificates of Designation, including the date of the amendment to the certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the Closing Date.

The Warrants are immediately exercisable and the exercise price of the Warrants is subject to certain reset adjustments as set forth in the forms of Warrant, including the date of the amendment to the Company's certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the date of issuance of the Warrants. Pursuant to the terms of the Securities Purchase Agreement, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park, or otherwise enter into a variable rate transaction, until March 2016. Additionally, pursuant to the terms of the Securities Purchase Agreement, the Company may not issue any of its securities until May 7, 2015 (the 90th day following the effective date of the last registration statement on Form S-1 registering all Registrable Securities (as defined in the registration rights agreement, as amended, entered into in connection with the Securities Purchase Agreement)). However, the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers, directors and employees at market prices and issuing securities pursuant to the Company's equity incentive plans.

H.C. Wainwright & Co. (the "Placement Agent") acted as the exclusive placement agent for the Securities Purchase Agreement pursuant to a placement agency engagement letter, dated as of September 23, 2014, by and between the Placement Agent and the Company (the "Engagement Letter"). Upon the closing of the Securities Purchase Agreement, pursuant to the Engagement Letter, the Placement Agent received a placement agent fee of $200,000 and a warrant to purchase approximately 9,306,654 shares of common stock, as well as the reimbursement of fees and expenses up to $50,000. Similar to the Series A Warrant, the placement agent warrant will have an initial exercise price of $0.0921 per share, be immediately exercisable and will terminate 5.5 years after the date of issuance. In addition, the Placement Agent Warrants have the same down-round protection as the Series A Warrants.

The Company's registration statement on Form S-1 filed on November 3, 2014 with the SEC became effective after amendment on November 25, 2014 registering 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock. Pursuant to the terms of the Securities Purchase Agreement, the conversion price of the Series H Preferred Stock and the exercise price of the Series A, B, and C Warrants was reset at $0.0576 per share. During year ended December 31, 2014, the investors converted 518.4 shares of Series H Preferred Stock into 9,000,000 shares of our common stock.

See Note 9, Stock Options and Warrants, Warrants Issued with Series H Preferred Stock for detailed discussion of the anti-dilution provisions of the Series A, B, and C Warrants.

Common Stock Transactions

2013 Securities Purchase Agreements for Common Stock

On January 22, 2013, to obtain funding for working capital purposes, the Company entered into a Securities Purchase Agreement with Dr. Andrey Semechkin and Dr. Simon Craw to sell a total of 10,125,000 shares of common stock at a price of $0.20 per share, for a total purchase price of $2,025,000. Dr. Andrey Semechkin is the Company's Co-Chairman and Chief Executive Officer. Dr. Simon Craw is the Company's Executive Vice President Business Development. The sale of the shares of common stock was completed on January 22, 2013. In connection with the sale of these shares the Company issued to each purchaser a warrant, exercisable for a period of 5 years, to purchase a number of shares of common stock equal to 50% of the shares purchased by that purchaser, for a total of 5,062,500 shares subject to the warrants at an exercise price of $0.20 per share.

On March 12, 2013, to obtain funding for working capital purposes, the Company entered into a Securities Purchase Agreement with certain investors, including Dr. Andrey Semechkin, to sell a total of 5,000,000 shares of common stock at a price of $0.20 per share, for a total purchase price of $1,000,000. Dr. Andrey Semechkin is the Company's Co-Chairman and Chief Executive Officer and purchased $100,000 worth of common stock. Each of the other investors has had a long-standing relationship with the Company and has closely followed the Company. The sale of the shares of common stock was completed on March 12, 2013. In connection with the sale of these shares the Company issued to each investor a warrant, exercisable for a period of five years, to purchase a number of shares of common stock equal to 50% of the shares purchased by that investor, for a total of 2,500,000 shares subject to the warrants at an exercise price of $0.20 per share.

2013 S-1 July Registered Offering

On July 19, 2013, to obtain funding for working capital purposes, the Company entered into subscription agreements with certain investors (the "Investors") relating to the sale by the Company of (i) 20,000,000 Units (each a "Unit", and collectively, the "Units"), with each Unit consisting of (x) one share of common stock, par value $0.001 per share, and (y) one Series A Warrant to purchase one share of the Company's common stock at an exercise price of $0.15 per share and (ii) 20,000,000 Series B Warrants, each to purchase one Unit, for aggregate gross proceeds of $3,000,000, before placement agent fees and other estimated offering expenses and fees (the "Offering"). The Units were not issued or certificated. The Investors received only shares of common stock, Series A Warrants and Series B Warrants. The common stock, the Series A Warrants and the Series B Warrants were and may be transferred separately immediately after their issuance. Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, purchased 5,998,999 Units and 5,998,999 Series B Warrants in the Offering; and Ruslan Semechkin, the Company's Chief Scientific Officer, purchased 667,667 Units and 667,667 Series B Warrants in the Offering for an aggregate price of $1,000,000.

On July 19, 2013, the Company also entered into a placement agent agreement (the "Placement Agent Agreement") with Roth Capital Partners, LLC (the "Placement Agent"), pursuant to which the Placement Agent agreed to act on a reasonable best efforts basis for the Offering. The Company paid the Placement Agent a cash fee equal to 5% of the gross proceeds from the Offering and reimbursed the Placement Agent for its reasonable out-of-pocket expenses of $75,000. The Company also issued 666,666 Placement Agent Warrants to purchase Units equal to 5% of the aggregate number of Units issued in the Offering (other than the Units issued to Andrey Semechkin and Ruslan Semechkin). The Placement Agent Warrants have substantially the same terms as the Series B Warrants, except that the Placement Agent Warrants (i) have an exercise price of $0.15 per Unit, subject to adjustments similar to those applicable to the Series A Warrants, (ii) have a term of five years, (iii) provide for a cashless exercise, and (iv) otherwise comply with the requirements of the Financial Institutions Regulatory Authority, Inc. (FINRA). The Company also agreed to pay the Placement Agent a cash solicitation fee equal to 5% of the gross proceeds received by the Company upon the exercise of the Series B Warrants under certain circumstances. See *2014 Warrant Exchange Agreements* below for the detailed discussion of common stock issued in the second quarter of 2014 in exchange for the cancellation of the warrants.

The Series A Warrants were immediately exercisable at an exercise price of $0.15 per share and will expire on the fifth anniversary of the initial date of issuance. Upon full exercise of the Series B Warrants, the Company could issue additional Series A Warrants to purchase up to an aggregate of 20,000,000 shares of the Company's common stock. All Series A Warrants have the same expiration date. See *2014 Warrant Exchange Agreements* below for the detailed discussion of common stock issued in the second quarter of 2014 in exchange for the cancellation of the warrants. See Note 9, Stock Options and Warrants, *Warrants Issued with Common Stock* for detailed discussion of the anti-dilution provisions of the Series A Warrants.

The Series B Warrants were immediately exercisable at an initial exercise price of $0.15, subject to adjustment and expired on October 24, 2013.

The net proceeds to the Company from the Offering, after deducting placement agent fees and cash offering expenses borne by the Company, and excluding any proceeds, from the exercise of the warrants issued in the offering, was approximately $2,377,000. The Offering closed on July 24, 2013.

During the year ended December 31, 2013, the Company received net proceeds of $2,356,000 upon the exercise of 16,754,822 of the Series B Warrants issued in July 2013 for 16,754,822 additional Units, but prior to expiration of the Series B Warrants on October 24, 2013. The total additional Units consisted of 16,754,822 shares of common stock and 16,754,822 Series A Warrants. Of the 16,754,822 Series B Warrants exercised during the year ended December 31, 2013, there were 12,304,822 subject to an adjusted exercise price of $0.1452 per Unit for net proceeds of approximately $1,722,000. The remaining 4,450,000 were exercised prior to the adjustment date at $0.15 per Unit for net proceeds of approximately $634,000. See Note 9, Stock Options and Warrants, *Warrants Issued with Common Stock* for detailed discussion of the price adjustment provisions of the Series B Warrants.

Of the Series B Warrants exercised, Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, exercised 2,754,821 Series B Warrants; and Ruslan Semechkin, the Company's Chief Scientific Officer, exercised 667,667 Series B Warrants for an aggregate price of $497,000.

In addition, during the year ended December 31, 2013, the Company received net proceeds of $30,000 upon the exercise of 200,000 of the Series A Warrants issued in July 2013 for 200,000 shares of common stock at an exercise price of $0.15 per share.

On October 24, 2013, the remaining 3,245,178 Series B Warrants expired unexercised. At December 31, 2014, there were no Series A and Placement Agent warrants outstanding. See *2014 Warrant Exchange Agreements* below for the detailed discussion of common stock issued in the second quarter of 2014 in exchange for the cancellation of the warrants. At December 31, 2013, total Series A and Placement Agent warrants outstanding were 36,554,822 and 666,666, respectively.

2014 Securities Purchase Agreements for Common Stock

On May 29, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Ruslan Semechkin to sell a total of 3,333,333 shares of common stock at a price of $0.15 per share, for a total purchase price of $500,000. On June 26, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Ruslan Semechkin to sell a total of 5,500,000 shares of common stock at a price of $0.10 per share, for a total purchase price of $550,000. Dr. Andrey Semechkin is the Company's Co-Chairman and Chief Executive Officer. Dr. Ruslan Semechkin is the Company's Chief Scientific Officer and director. On August 6, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Ruslan Semechkin to sell a total of 6,000,000 shares of common stock at a price of $0.10 per share, for a total purchase price of $600,000. On September 10, 2014, to obtain funding for working capital purposes, the Company entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Ruslan Semechkin to sell a total of 4,444,445 shares of common stock at a price of $0.09 per share, for a total purchase price of $400,000.

2014 Warrant Exchange Agreements

On June 11, 2014, the Company entered into a series of warrant exchange agreements (the "Warrant Exchange Agreements") with the holders of its Series A Warrants and Placement Agent Warrants that were issued by the Company pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, the Company agreed to issue a total of 44,665,783 shares of common stock (the "Exchange Shares") to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 36,554,822 shares of common stock and the Placement Agent Warrants to purchase 666,666 shares of common stock and Series A Warrants.

Dr. Andrey Semechkin and Dr. Ruslan Semechkin, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 10,088,154 shares of common stock for 12,105,784 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares. Upon settlement of the exchange transaction, there were no remaining Series A Warrants or Placement Agent Warrants outstanding. See Note 9, Stock Options and Warrants, *2014 Warrants Exchange Agreements* for detailed discussion of the accounting treatment of the Warrant Exchange transaction.

2013 Lincoln Park Capital Fund, LLC Stock Purchase Agreement

On December 10, 2013, the Company entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has agreed to purchase up to an aggregate of $10,250,000 of common stock (subject to certain limitations) from time to time through January 2017. Of the aggregate $10,250,000 of common stock that may be sold to Lincoln Park, on December 11, 2013, the Company sold 1,666,666 shares of common stock to Lincoln Park for an aggregate purchase price of $250,000 pursuant to the Purchase Agreement, which is referred to as the Initial Purchase. Upon execution of the Purchase Agreement, the Company paid to Lincoln Park $155,000, as a cash fee, for their commitment to purchase additional shares of common stock under the Purchase Agreement.

Also on December 10, 2013, the Company entered into a Registration Rights Agreement with Lincoln Park, pursuant to which the Company filed with the SEC an S-1 Registration Statement to register for resale under the Securities Act of 1933, as amended, or the Securities Act, the shares that have been or may be issued to Lincoln Park under the Purchase Agreement. The S-1 Registration Statement filed with the Securities and Exchange Commission in December 2013 and amended in January 2014 was declared effective on January 13, 2014.

During the years ended December 31, 2014 and 2013, the Company sold 8,200,000 and 1,666,666 shares, respectively, to Lincoln Park raising approximately $1,588,000 and $250,000, respectively, for working capital purposes. From commencement through to December 31, 2014, the Company has sold a total of 9,866,666 shares of common stock to Lincoln Park for an aggregate of $1,838,000 under the Agreement. As of December 31, 2014, there remained 10,133,334 shares available for sale up to a total of $8,412,000 under the Purchase Agreement with Lincoln Park.

The Company may, from time to time and in its sole discretion, direct Lincoln Park to purchase shares of common stock in amounts up to 200,000 shares on any single business day so long as at least one business day has passed since the most recent purchase, which amounts may be increased to up to 300,000 shares and up to 400,000 shares, provided the closing price of the common stock exceeds a certain threshold, with a maximum limit of up to $500,000 per purchase, plus an additional "accelerated amount" under certain circumstances. There are no trading volume requirements or restrictions under the Purchase Agreement, and the Company will control the timing and amount of any sales of common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park under the Purchase Agreement will be based on the market price of the common stock immediately preceding the time of sale as computed under the Purchase Agreement without any fixed discount; provided that in no event will such shares be sold to Lincoln Park when the closing sale price is less than $0.05 per share, subject to adjustment as provided in the Purchase Agreement.

The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. The Company may at any time in its sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business day notice. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

Pursuant to the terms of a securities purchase agreement entered into with investors in connection with a private placement effected October 14, 2014, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park until March 2016.

Aspire Common Stock Purchase Agreement

On December 9, 2010, Company entered into a common stock purchase agreement (the "Purchase Agreement") with Aspire Capital Fund, LLC ("Aspire Capital"), which provided that, subject to certain conditions and limitations, Aspire Capital was committed to purchase up to an aggregate of $25,000,000 of common stock over the term of the Purchase Agreement. The Purchase Agreement expired in December 2013.

On any day on which the principal market for shares of the Company's common stock is open for trading, over the three-year term of the Purchase Agreement, the Company had the right, in its sole discretion, to provide Aspire Capital with a purchase notice (each, a "Purchase Notice") directing Aspire Capital to purchase the number of shares of common stock specified in the Purchase Notice. The number of shares the Company could designate in the Purchase Notice varied based on the closing price of the common stock on the date of the Purchase Notice. The purchase price per share for each Purchase Notice was the lower of (i) the lowest sale price for the common stock on the date of sale or (ii) the arithmetic average of the three lowest closing sale prices for the common stock during the 12 consecutive business days ending on the business day immediately preceding the purchase date of those securities.

During the year ended December 31, 2013, the Company issued 1,200,000 shares of common stock to Aspire Capital, raising $264,000, which was used to fund its research and operational activities.

Reserved Shares

At December 31, 2014, the Company had shares of common stock reserved for future issuance as follows:

Options outstanding	28,928,930
Options available for future grant	6,405,980
Convertible preferred stock	173,895,796
Warrants	127,508,118
	336,738,824

7. Related Party Transactions

Other than with respect to the purchases of Series C Preferred, Series D Preferred, Series G Preferred, Series H Preferred, and common stock transactions discussed above, the Company's related party transactions were for a facility lease.

During the first quarter of 2011, the Company executed an operating lease for its corporate offices with S Real Estate Holdings LLC. S Real Estate Holdings LLC is owned by Dr. Ruslan Semechkin, the Company's Chief Scientific Officer and a director and was previously owned by Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors. The lease agreement was negotiated at arm's length and was reviewed by the Company's outside legal counsel. The terms of the lease were reviewed by a committee of independent directors, and the Company believes that, in total, those terms are at least as favorable to the Company as could be obtained for comparable facilities from an unaffiliated party. For the years ended December 31, 2014 and 2013, the Company recorded $139,000 in rent expense that was related to the facility lease arrangement with related parties.

8. Income Taxes

The Company accounts for income taxes in accordance with applicable authoritative guidance, which requires the Company to provide a net deferred tax asset/liability equal to the expected future tax benefit/expense of temporary reporting differences between book and tax accounting methods and any available operating loss or tax credit carryforwards. The Company has available at December 31, 2014, operating loss carryforwards of

approximately $56,083,000, which may be applied against future taxable income and will expire in various years through 2033. At December 31, 2013, the Company had operating loss carryforwards of approximately $48,913,000. The increase in carryforwards for the year ended December 31, 2014 is approximately $7,170,000.

The amount of and ultimate realization of the benefits from the operating loss carryforwards for income tax purposes is dependent, in part, upon the tax laws in effect, the future earnings of the Company, and other future events, the effects of which cannot be determined at this time. Because of the uncertainty surrounding the realization of the loss carryforwards, the Company has established a valuation allowance equal to the tax effect of the loss carryforwards, R&D credits, and accruals; therefore, no net deferred tax asset has been recognized. A reconciliation of the statutory Federal income tax rate and the effective income tax rate for the year ended December 31, 2014 and 2013 follows:

	December 31, 2014	December 31, 2013
Statutory federal income tax rate	35%	35%
Permanent items	(12)%	(12)%
State income taxes, net of federal taxes	4%	4%
Change in valuation allowance	(29)%	(30)%
Tax credits claimed	1%	2%
Other	1%	1%
Effective income tax rate	0%	0%

The Company files income tax returns in the U.S. federal jurisdiction and various states. With few exceptions, the Company is no longer subject to U.S. federal, state and local income tax examinations by tax authorities for years before 2010. The Company does not have any material uncertain tax positions as of December 31, 2014 and 2013. The Company does not believe it is reasonably possible that the total amount of unrecognized tax benefits as of December 31, 2014 will materially change in the next 12 months.

The Company may be subject to IRC Code Sections 382 and 383, which could limit the amount of the net operating loss and tax credit carryovers that can be used in future years. The Company has not completed a study to assess whether an ownership change has occurred, as defined by IRC Code Sections 382 and 383, or whether there have been ownership changes since the Company's formation due to the complexity and cost associated with such a study, and the fact that there may be additional such ownership changes in the future. The Company estimates that if such a change did occur, the federal and state net operating loss carryforwards and research and development credit carryforwards that can be utilized in the future will be significantly limited.

There can be no assurance that the Company will ever be able to realize the benefit of some or all of the federal and state loss carryforwards or the credit carryforwards, either due to ongoing operating losses or due to ownership changes, which limit the usefulness of the loss carryforwards.

Significant components of deferred tax assets and liabilities are as follows (in thousands):

	December 31, 2014	December 31, 2013
Deferred tax assets (liabilities)		
Current deferred tax assets (liabilities)	$ 187	$ 298
Deferred revenues	—	—
Current deferred tax assets	187	298
Valuation allowances	(187)	(298)
Net current deferred tax assets	—	—
Net operating loss carryforwards	22,332	19,224
Stock based compensation	3,359	2,987
Research and development tax credit	1,842	1,627
Other	72	51
Non-current deferred tax assets	27,605	23,889
Valuation allowances	(27,582)	(23,884)
Net non-current deferred tax assets	23	5
Non-current deferred tax liabilities	(23)	(5)
Net deferred tax assets	—	—

The components of the provision for income taxes were as follows:

	December 31, 2014	December 31, 2013
Current	$ —	$ —
Deferred	—	—
Total	$ —	$ —

9. Stock Options and Warrants

Stock Options

The Company has adopted the 2006 Equity Participation Plan (the "2006 Plan"). The options granted under the 2006 Plan may be either qualified or non-qualified options. Up to 15,000,000 options may be granted to employees, directors and consultants under this Plan. Options may be granted with different vesting terms and expire no later than 10 years from the date of grant.

In April 2010, the Company adopted the 2010 Equity Participation Plan (the "2010 Plan"). The options granted under the 2010 Plan may be either qualified or non-qualified options. Up to 18,000,000 options may be granted to employees, directors and consultants under the 2010 Plan. Options may be granted with different vesting terms and expire no later than 10 years from the date of grant.

In November and December of 2009, the Company issued outside the 2006 and 2010 Plans non-qualified stock options to purchase 10,257,593 shares of

common stock to certain employees and consultants. These options vest over 50 months and expire no later than 10 years from the date of grant.

In accordance applicable authoritative guidance, the Company is required to establish assumptions and estimates of the weighted-average fair value of stock options granted, as well as using a valuation model to calculate the fair value of stock-based awards. The Company uses the Black-Scholes option-pricing model to determine the fair-value of stock-based awards. All options are amortized over the requisite service periods. During the years

ended December 31, 2014 and 2013, the Company recognized $1,418,000 and $1,693,000, as stock-based compensation expense, respectively. Unrecognized compensation expense related to stock options as of December 31, 2014 and 2013 was $977,000 and $1,864,000, respectively, which is expected to be recognized over a weighted average period of approximately 2.2 years and 1.6 years, respectively.

Stock-based compensation for stock options granted to non-employees has been determined using the estimated fair value of the stock options issued, based on the Black-Scholes Option Pricing Model. These options are revalued at each reporting period until fully vested, with any change in fair value recognized in the consolidated statements of operations.

The fair value of options granted is estimated at the date of grant using a Black-Scholes option-pricing model with the following weighted-average assumptions for the years ended December 31, 2014 and 2013:

	Year Ended December 31, 2014	Year Ended December 31, 2013
Significant assumptions (weighted average):		
Risk-free interest rate at grant date	1.90%	1.02%
Expected stock price volatility	100.75%	116.53%
Expected dividend payout	0%	0%
Expected option life based on management's estimate	6.08 yrs	6.08 yrs

	Options Outstanding			Options Exercisable and Vested		
Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price
$0.09-$0.17	6,109,000	9.53	$ 0.14	—	—	—
$0.18-$0.54	4,856,037	6.00	$ 0.37	3,496,512	5.27	$ 0.39
$0.55-$0.69	8,901,543	4.87	$ 0.61	8,901,543	4.87	$ 0.61
$0.70-$1.76	3,732,350	3.87	$ 1.16	3,673,600	3.83	$ 1.17
$1.77-$3.20	5,330,000	5.90	$ 1.97	5,031,200	5.89	$ 1.98
	28,928,930	6.10	$ 0.79	21,102,855	5.00	$ 1.00

Transactions involving stock options issued to employees, directors and consultants under the 2006 Plan, the 2010 Plan and outside the plans are summarized below. Options issued have a maximum life of 10 years. The following table summarizes the changes in options outstanding and the related exercise prices for the Company's common stock options issued:

	Number of Options Issued Under 2006 Plan and 2010 Plan	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2012	15,122,900	$ 1.18		
Granted	1,491,500	$ 0.26		
Exercised	—	$ —		
Canceled or expired	(586,000)	$ 0.61		
Outstanding at December 31, 2013	16,028,400	$ 1.12		
Granted				

	6,324,000	$ 0.14		
Exercised	—	$ —		
Canceled or expired	(1,032,763)	$ 0.53		
Outstanding at December 31, 2014	21,319,637	$ 0.86	6.55 years	$ —
Vested and expected to vest at December 31, 2014	20,194,202	$ 0.90	6.39 years	$ —
Exercisable at December 31, 2014	13,493,562	$ 1.21	5.07 years	$ —

	Number of Options Issued Outside the Plan	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2012	8,254,232	$ 0.65		
Granted	—	$ —		
Exercised	—	$ —		
Canceled or expired	(644,939)	$ 1.00		
Outstanding at December 31, 2013	7,609,293	$ 0.62		
Granted	—	$ —		
Exercised	—	$ —		
Canceled or expired	—	$ —		
Outstanding, vested and exercisable at December 31, 2014	7,609,293	$ 0.62	4.86 years	$ —

Restricted Stock Awards

Restricted stock awards are grants that entitle the holder to acquire shares of common stock at zero or a fixed price, which is typically nominal. The Company accounts for the restricted stock awards as issued and outstanding common stock, even though the shares covered by a restricted stock award cannot be sold, pledged, or otherwise disposed of until the award vests and any unvested shares may be reacquired by the Company for the original purchase price following the awardee's termination of service. Annual grants of restricted stock awards are made to the outside board of directors on the date of the annual meeting of stockholders and typically vest in full at the next annual meeting of stockholders following the grant date. Beginning in 2013, annual grants of restricted stock awards were made to the outside board of directors in connection with a reduction in cash compensation for their services. These awards vest quarterly at the end of each quarter. In addition, the Company has made restricted stock awards to non-employee consultants for their services, which generally vest in one year or less.

The following table summarizes restricted stock award activity during the years ended December 31, 2014 and 2013:

	Restricted Stock Issued from the 2006 Plan and 2010 Plan	Weighted Average Grant Date Fair Value
Unvested at December 31, 2012	335,000	$ 0.32
Granted	961,000	$ 0.24
Vested	(1,029,750)	$ 0.27
Forfeited	(121,250)	$ 0.25
Unvested at December 31, 2013	145,000	$ 0.23
Granted	1,096,333	$ 0.17
Vested	(1,096,333)	$ 0.18
Forfeited	—	$ —
Unvested at December 31, 2014	145,000	$ 0.16

The fair value of the restricted stock awards is based on the market value of the common stock on the date of grant. The total grant-date fair value of restricted stock awards vested during the years ended December 31, 2014 and 2013 was approximately $194,000 and $273,000, respectively. The Company recognized approximately $191,000 and $240,000 of stock-based compensation expense related to the restricted stock awards for the years ended December 31, 2014 and 2013, respectively. As of December 31, 2014 and 2013, total unrecognized

compensation costs related to unvested awards were approximately $8,000 and $16,000, respectively, which is expected to be recognized over a weighted-average period of approximately 0.6 year and 0.5 year, respectively.

Warrants

Warrants Issued with Preferred Stock

During 2008, in connection with the Company's fund raising efforts, two warrants to purchase shares of common stock were issued with the purchase of one share of Series A Preferred Stock, where an additional 2,000,000 common stock warrants were outstanding and two warrants to purchase shares of common stock were issued with the purchase of one share of Series B Preferred Stock, where an additional 1,100,000 common stock warrants were outstanding. During the second quarter of 2010, the holders of the warrants issued to the purchasers of the Series A Preferred Stock and Series B Preferred Stock, signed a waiver to give up their rights to the anti-dilution provisions related to the warrants and the exercise price was fixed at $0.25.

As of December 31, 2014, there were no outstanding warrants related to the Series A Preferred Stock and Series B Preferred Stock. Warrants related to the Series A Preferred Stock expired in January 2013, and warrants related to the Series B Preferred Stock expired in July 2013.

Warrants issued in connection with the October 2014 Financing

The Company has accounted for the warrants in accordance with current accounting guidance, which defines how freestanding contracts that are indexed to and potentially settled in a Company's own stock should be measured and classified. The authoritative accounting guidance prescribes that only warrants issued under contracts that cannot be net-cash settled and are both indexed to and settled in the Company's common stock can be classified as equity. As the Series A, Series B and Series C Warrants and Placement Agent Warrant agreements did not meet the specific conditions for equity classification, the Company was required to classify the fair value of the warrants issued as a liability, with subsequent changes in fair value to be recorded as income (loss) in the statement of operations upon revaluation of the fair value of warrant liability at each reporting period. Valuation of the Warrants was estimated at December 31, 2014 using the Monte-Carlo simulation model.

The following assumptions were used as inputs to the model at December 31, 2014: for Series A Warrants and the Placement Agent Warrants, stock price of $0.069 and warrant exercise price of $0.0576 as of the valuation date; the Company's historical stock price volatility of 83%; risk free interest rate on U.S. treasury notes of 1.63%; warrant expiration of 5.29 years; and a zero dividend rate, for Series B Warrants, stock price of $0.069 and warrant exercise price of $0.0576 as of the valuation date; the Company's historical stock price volatility of 33.4%; risk free interest rate on U.S. treasury notes of 0.02%; warrant expiration of 0.28 years; and a zero dividend rate, for Series C Warrants, stock price of $0.069 and warrant exercise price of $0.0576 as of the valuation date; the Company's historical stock price volatility of 33.4%; risk free interest rate on U.S. treasury notes of 0.02%; warrant expiration of 0.79 years; and a zero dividend rate,; simulated as a daily interval and anti-dilution impact if the Company had to raise capital below $0.0576 per share.

The fair value of the warrant liability at the issuance date exceeded the gross proceeds received for the Series H Preferred shares, Series A, Series B and Series C Warrants by $1,779,000. The Series A Warrants, Series B Warrants, Series C Warrants and Placement Agent Warrants had fair values of $2,299,000, $841,000, $1,139,000 and $552,000 at issuance, respectively. The classification and valuation of the warrants resulted in total warrant liabilities of $4,831,000 and $4,216,000 as of the issuance date of October 14, 2014 and the revaluation date of December 31, 2014, respectively. During the year ended December 31, 2014, the Company recorded a net change in fair value of warrant liability gain of $2,405,000 in the consolidated statements of operations.

Series B Warrant Exercises – During the year ended December 31, 2014, the Company received net proceeds of $339,506 upon the exercise of 5,894,214 of the Series B Warrants by, Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer.

Series A, B, and C Warrants Price Adjustment – The Warrants are immediately exercisable and the exercise price of the Warrants is subject to certain reset adjustments as set forth in the forms of Warrant, including the date of the amendment to the Company's certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the date of issuance of the Warrants. The Company's registration statement on Form S-1 filed on November 3, 2014 with the SEC became effective after amendment on November 25, 2014. Pursuant to the terms of the Securities Purchase Agreement, the conversion price of the Series H Preferred Stock and the exercise price of the Series A, B, and C Warrants was reset at $0.0576 per share.

Warrants Issued with Common Stock

2013 Securities Purchase Agreements for Common Stock

In conjunction with the Company's sale of 10,125,000 shares of common stock on January 22, 2013, the Company issued warrants convertible into 5,062,500 shares of common stock at an exercise price of $0.20 per share. The warrants have a five-year term. These warrants are held by Dr. Andrey Semechkin and Dr. Simon Craw, the Company's Co-Chairman and Chief Executive Officer and the Company's Executive Vice President Business Development, respectively.

On March 12, 2013 the Company issued warrants convertible into 2,500,000 shares of common stock in conjunction with the sale of 5,000,000 shares of common stock. These warrants have a five-year term and an exercise price of $0.20 per share. Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer is the holder of 250,000 of these warrants.

2013 S-1 July Registered Offering

On July 24, 2013 the Company sold 20,000,000 Units, with each Unit consisting of one share of common stock and one Series A Warrant. The Series A Warrants were convertible into 20,000,000 shares of common stock at an exercise price of $0.15 per share. The warrants have a five year term and were immediately exercisable. In addition, the Company issued 20,000,000 Series B Warrants each to purchase one Unit. The Series B Warrants were immediately exercisable at an initial exercise price of $0.15 per Unit, subject to adjustment and expired on October 24, 2013. The Units issuable upon exercise of the Series B Warrants consisted of 20,000,000 shares of common stock and 20,000,000 Series A Warrants, which were convertible into an additional 20,000,000 shares of common stock at an exercise price of $0.15 per share. All Series A Warrants had an expiration date of the fifth anniversary of the transaction close, July 24, 2018, regardless of the date the Series A Warrants were issued. See the *2014 Warrant Exchange Agreements* – discussed below.

On July 19, 2013, the Company also entered into a placement agent agreement (the "Placement Agent Agreement") with Roth Capital Partners, LLC (the "Placement Agent"), pursuant to which the Placement Agent agreed to act on a reasonable best efforts basis for the Offering. The Company paid the Placement Agent a cash fee equal to 5% of the gross proceeds from the Offering and reimbursed the Placement Agent for its reasonable out-of-pocket expenses of $75,000. The Company also issued 666,666 Placement Agent Warrants to purchase Units equal to 5% of the aggregate number of Units issued in the Offering (other than the Units issued to Andrey Semechkin and Ruslan Semechkin). The Placement Agent Warrants had substantially the same terms as the Series B Warrants, except that the Placement Agent Warrants (i) had an exercise price of $0.15 per Unit, subject to adjustments similar to those applicable to the Series A Warrants, (ii) had a term of five years, (iii) provided for a cashless exercise, and (iv) otherwise comply with the requirements of the Financial Institutions Regulatory Authority, Inc. (FINRA). The Company also agreed to pay the Placement Agent a cash solicitation fee equal to 5% of the gross proceeds received by the Company upon the exercise of the Series B Warrants under certain circumstances. See the *2014 Warrant Exchange Agreements* – discussed below.

The Series B Warrants were immediately exercisable at an initial exercise price of $0.15, subject to adjustment. Beginning at the close of trading on the 60th trading day following the date of issuance, and effective beginning

on the fifth trading day immediately preceding such 60th trading day, the Series B Warrants were exercisable at a per unit exercise price equal to the lower of (i) the then-effective exercise price per unit and (ii) 80% of the closing bid price of the Company's common stock on such 60th trading day. If prior to the close of trading on the 60th trading day after the date of issuance (and on any of the five trading days immediately preceding such day), a holder of the Series B Warrants had delivered one or more exercise notices to the Company and paid all or any part of the exercise price with respect thereto, then on the first trading day immediately following such 60th trading day the Company was obligated to deliver to such holder an amount in cash equal to the positive difference (if any) between (x) the exercise price actually paid by such holder and (y) the product of (I) the aggregate number of units elected to be purchased in such exercise notices, multiplied by (II) 80% of the closing bid price of the Company's common stock on such 60th trading day. The Series B Warrants expired at the close of business on the 65th trading day following the date of issuance, October 24, 2013. The Series B Warrants were issued separately from the common stock and the Series A Warrants included in the Units, and were transferable separately, immediately thereafter. Series B Warrants were issued in certificated form only. Investors in the Offering received one Series B Warrant for each Unit purchased by them in the Offering. No additional consideration was paid by holders of the Series B Warrants.

The exercise price and number of shares of common stock issuable upon exercise of the Series A Warrants were subject to adjustment in the event of any stock dividends and splits, reverse stock split, stock dividend, recapitalization, reorganization or similar transaction, as described in the Series A Warrants. The Series A Warrants also contained full ratchet anti-dilution protection upon the issuance of any common stock, securities convertible into common stock, or certain other issuances at a price below the then existing exercise price of the Series A Warrants, with certain exceptions. The exercise price and number of Units issuable on exercise of the Series B Warrants were subject to adjustment in the event of any stock split, reverse stock split, stock dividend, recapitalization, reorganization or similar transaction, as described in the Series B Warrants.

The Series A Warrants were exercisable on a "cashless" basis in certain circumstances. In addition, in the event of a fundamental transaction that is (i) an all cash or substantially all cash transaction, (ii) a "Rule 13e 3 transaction" as defined in Rule 13e-3 under the Securities Exchange Act of 1934, as amended, or (iii) with certain limited exceptions, a fundamental transaction involving a person or entity not traded on The New York Stock Exchange, Inc., The NYSE MKT, The NASDAQ Global Select Market, The NASDAQ Global Market or The NASDAQ Capital Market, then the Company or any successor entity would pay at the holder's option, exercisable at any time concurrently with or within 45 days after the consummation of the fundamental transaction, an amount of cash equal to the value of the Series A Warrant as determined in accordance with the Black Scholes option pricing model.

The Company has accounted for the warrants in accordance with current accounting guidance, which defines how freestanding contracts that are indexed to and potentially settled in a Company's own stock should be measured and classified. The authoritative accounting guidance prescribes that only warrants issued under contracts that cannot be net-cash settled and are both indexed to and settled in the Company's common stock can be classified as equity. As the Series A Warrant, Series B Warrant, and Placement Agent Warrant agreements did not meet the specific conditions for equity classification, the Company was required to classify the fair value of the warrants issued as a liability, with subsequent changes in fair value to be recorded as income (loss) in the statement of operations upon revaluation of the fair value of warrant liability at each reporting period. Valuation of the Warrants was estimated at each quarter and as of the year ended December 31, 2013 using the Monte-Carlo simulation model. The following assumptions were used as inputs to the model at December 31, 2013: stock price of $0.21 and warrant exercise price of $0.15 as of the valuation date; the Company's historical stock price volatility of 84.3%; risk free interest rate on U.S. treasury notes of 1.55%; warrant expiration of 4.56 years; and a zero dividend rate for the Series A Warrants and the Placement Agent Warrants; simulated as a daily interval and anti-dilution impact if the Company had to raise capital below $0.15 per share.

The fair value of the warrant liability at the issuance date exceeded the gross proceeds received for the common shares, Series A Warrants and the Series B Warrants by $1,390,000. The Series A Warrants, Series B Warrants,

and Placement Agent Warrants had fair values of $1,725,000, $2,645,000 and $115,000 at issuance, respectively. The classification and valuation of the warrants resulted in total warrant liabilities of $4,485,000 and $4,925,000 as of the issuance date of July 24, 2013 and the revaluation date of December 31, 2013, respectively. During the year ended December 31, 2014, the Company recorded a net change in fair value of warrant liability gain of $1,894,000 in the consolidated statements of operations prior to the 2014 Warrant Exchange Transaction in the second quarter of 2014 and for the quarterly revaluation at March 31, 2014. See the *2014 Warrant Exchange Agreements* – discussed below.

Series A and B Warrant Exercises – There were no warrant exercises during the year ended December 31, 2014. During the year ended December 31, 2013, the Company received net proceeds of $2,356,000 upon the exercise of 16,754,822 of the Series B Warrants issued in July 2013 for 16,754,822 additional Units, but prior to the expiration of the Series B Warrants on October 24, 2013. The total additional Units consisted of 16,754,822 shares of common stock and 16,754,822 Series A Warrants. Of the Series B Warrants exercised, Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, exercised 2,754,821 Series B Warrants; and Ruslan Semechkin, the Company's Chief Scientific Officer, exercised 667,667 Series B Warrants for an aggregate price of $497,000.

In addition, during the year ended December 31, 2013, the Company received net proceeds of $30,000 upon the exercise of 200,000 of the Series A Warrants issued in July 2013 for 200,000 shares of common stock at an exercise price of $0.15 per share.

Series B Price Adjustment – The Series B Warrants were subject to an exercise price adjustment on the 60 th trading day following issuance in July 2013. On October 17, 2013, the adjustment date, the adjusted exercise price was calculated at a 20% discount to the closing bid price on the adjustment date. The closing bid price on the adjustment date was $0.1815 per share, which resulted in an adjusted exercise price of $0.1452 per Unit. This adjusted exercise price was retroactively applied to all exercises from the period of October 10 th through to the expiration date of October 24 th . Of the 16,754,822 Series B Warrants exercised during the year ended December 31, 2013, there were 12,304,822 subject to the adjusted exercise price of $0.1452 per Unit for net proceeds of approximately $1,722,000. The remaining 4,450,000 were exercised prior to the adjustment date at $0.15 per Unit for net proceeds of approximately $634,000.

Expiration of Series B Warrants – On October 24, 2013, the remaining 3,245,178 Series B Warrants expired unexercised.

2014 Warrant Exchange Agreements – On June 11, 2014, the Company entered into a series of warrant exchange agreements (the "Warrant Exchange Agreements") with the holders of its Series A Warrants and Placement Agent Warrants that were issued by the Company pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, the Company agreed to issue a total of 44,665,783 shares of common stock (the "Exchange Shares") to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 36,554,822 shares of common stock and the Placement Agent Warrants to purchase 666,666 shares of common stock and Series A Warrants. Dr. Andrey Semechkin and Dr. Ruslan Semechkin, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 10,088,154 shares of common stock for 12,105,784 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares.

Immediately prior to the Warrant Exchange transaction, the Company recorded a net change in fair value of warrant liability gain of $1,271,000. As a result of the Warrant Exchange, the Company recognized a $3,445,000 loss for the warrant exchange inducement expense. In addition, the Company recorded a reclassification of $3,031,000 to additional paid in capital from warrant liability for a total increase to additional paid in capital of $6,428,000, which represents the fair value of the stock issued in the Warrant Exchange.

As part of the Warrant Exchange Agreement, the Company agreed that through September 14, 2014 it would not offer, sell, pledge, contract to sell or otherwise dispose of any equity securities or securities convertible, exercisable or exchangeable into equity securities of the Company, except for the issuance of equity awards pursuant to the Company's employee benefit plans and employee incentive plans, the issuance of common stock pursuant to the valid exercise of options or warrants or upon exercise of conversion rights with respect to convertible securities outstanding on the date of the Warrant Exchange, and the issuance and sale of equity securities in private placements to directors or officers of the Company.

As of December 31, 2014 and 2013, there were 0 and 36,554,822 Series A Warrants and 0 and 666,666 Placement Agent Warrants outstanding, respectively, which the Company had reserved 0 and 37,888,154 shares of common stock for future issuance, respectively.

Warrants Issued with Other Financings

During 2007 and 2008, the Company entered into various agreements to borrow working capital and as part of these agreements, the Company issued warrants to the holders to purchase common stock. The Company issued 1,400,000 warrants to YKA Partners, an affiliated company of its former Co-Chairman of the Board with an exercise price of $0.25 per share, all of which expired unexercised in August 2013.

Warrants Issued in Connection with SkinCare Marketing Agreement

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, with a third party marketing organization. According to the terms of the agreement as described in Note 10 below, Commitments and Contingencies, under Marketing Arrangement and Agreement, the third party marketing organization would provide assistance to LSC to sell its skin care products through various specific proprietary mailings. The agreement provides for two tranches of common stock warrants issued by the Company for the benefit of the third party marketing organization for 100,000 shares each, with strike prices of $1.50 and $2.00, respectively, vesting over four quarters, and a warrant term of five years. As of December 31, 2014 and 2013, there were 200,000 warrants outstanding. These warrants expire in September 2016.

Share data related to warrant transactions as of December 31, 2014 were as follows:

	Preferred Stock		Common Stock July 2013 Financing		Units	Common Stock October 2014 Financing				Common Stock				
	Series A	Series B	Series A	Series B	Placement Agent	Series A	Series B	Series C	Placement Agent	YKA Loan	Skin Care Marketing	Jan 2013 Financing	Mar 2013 Financing	Total Warrants
Outstanding, December 31, 2012	1,600,000	300,000	—	—	—	—	—	—	—	1,400,000	200,000	—	—	3,500,000
2013														
Issued			36,754,822	20,000,000	666,666							5,062,500	2,500,000	64,983,988
Exercised			(200,000)	(16,754,822)										(16,954,822)
Forfeited/Cancelled	(1,600,000)	(300,000)		(3,245,178)						(1,400,000)				(6,545,178)
Outstanding, December 31, 2013	—	—	36,554,822	—	666,666	—	—	—	—	—	200,000	5,062,500	2,500,000	44,983,988
2014														
Issued						38,777,726	38,777,726	38,777,726	9,306,654					125,639,832
Exchanged			(36,554,822)		(666,666)									(37,221,488)
Exercised							(5,894,214)							(5,894,214)
Forfeited/Cancelled														—
Outstanding, December 31, 2014	—	—	—	—	—	38,777,726	32,883,512	38,777,726	9,306,654	—	200,000	5,062,500	2,500,000	127,508,118

	Price per Warrant	
	Range	Weighted Average Exercise Price
Outstanding, December 31, 2012	$0.25-2.00	$ 0.34
2013		
Issued	$0.15-0.20	$ 0.16
Exercised	$0.15-0.15	$ 0.15
Forfeited/Cancelled	$0.15-0.25	$ 0.20
Outstanding, December 31, 2013	$0.15-2.00	$ 0.17
2014		
Issued	$ 0.06	$ 0.06
Exchanged	$ 0.15	$ 0.15
Exercised	$ 0.06	$ 0.06
Forfeited/Cancelled	$ —	$ —
Outstanding, December 31, 2014	$0.06-2.00	$ 0.07

10. Commitments and Contingencies

Leases

The Company has established its primary research facility in 8,215 square feet of leased office and laboratory space in Oceanside, California. The lease for this facility expires in August 2016. The current base rent is $8,846 per month. The facility has leasehold improvements which include cGMP (current Good Manufacturing Practices) level clean rooms designed for the derivation of clinical-grade stem cells and their differentiated derivatives, research laboratories for the Company's stem cell differentiation studies and segregated rooms for biohazard control and containment of human donor tissue. The monthly base rent will increase by 3% annually on the anniversary date of the agreement.

The Company leases a 5,520 square foot manufacturing facility in Frederick, Maryland, which is used for laboratory and administrative purposes. The current base rent is $11,105. The initial term of the lease expires in December 2015 and there is an option for an additional five years. The laboratory is being used to develop and manufacture the Company's research products and the administration facility will be is used for sales and marketing and general administrative purposes. The manufacturing laboratory space has clean rooms and is fitted with the necessary water purification, refrigeration, labeling equipment and standard manufacturing equipment to manufacture, package, store, and distribute media products.

On February 25, 2011, the Company entered into a lease agreement (the "Lease Agreement") with S Real Estate Holdings LLC to allow the Company to expand into new corporate offices located at 5950 Priestly Drive, Carlsbad, California. The building is used for administrative purposes, but could also be used for research and development purposes if such space is needed in the future. The lease initially covered approximately 4,653 square feet, starting on March 1, 2011, and was amended to cover approximately 8,199 square feet effective July 1, 2011, and to cover approximately 9,848 square feet effective January 1, 2013. The lease expires on February 29, 2016, subject to the Company's right to extend the term for up to five additional years. The Company began paying rent at an initial rate of $5,118 per month and the rate was amended effective July 1, 2011 and January 1, 2013 to account for additional square footage occupied by the Company. The current base rent is $11,837 per month. The monthly base rent will increase by 3% annually on the anniversary date of the agreement. The Company is also obligated to pay a portion of the utilities for the building and increases in property tax and insurance.

S Real Estate Holdings LLC is owned by Dr. Ruslan Semechkin, the Company's Chief Scientific Officer and a director, and was previously owned by Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors. The Lease Agreement was negotiated at arm's length and was reviewed by the Company's outside legal counsel. The terms of the lease were reviewed by a committee of independent directors, and the Company believes that, in total, those terms are consistent with the terms that could be obtained for comparable facilities from an unaffiliated party.

The Company incurred rent expense of $315,000 and $310,000 for the years ended December 31, 2014 and 2013, respectively.

Future minimum lease payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of December 31, 2014, are as follows (in thousands):

	Amount
2015	399
2016	103
2017	5
Total	$ 507

Marketing Agreement

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, superseding the terms of a previous arrangement with a third party marketing organization. According to the agreement, the third party marketing organization will continue to provide assistance to Lifeline Skin Care, Inc., ("LSC") a wholly-owned subsidiary of International Stem Cell, to sell skin care products through various specific proprietary mailings. In exchange for such services, the Company will pay 20% of net revenues for Direct Sales (as defined in the agreement) generated from the proprietary mailings. In addition, the Company agreed to pay 10% of net revenues for Referral Sales. The agreement specifies that the parties do not intend to create a joint venture, and that either party may terminate the agreement upon 30-day written notice. In addition, the agreement provided for two tranches of common stock warrants issued by the Company for the benefit of the third party marketing organization for 100,000 shares each, with strike prices of $1.50 and $2.00, respectively, with vesting over four quarters, and warrant term of five years. Subsequently in July 2012, the Company renegotiated the commission structure to reflect slightly lower rates, 18% on net revenues derived from direct sales and 9% on net revenues derived from referral sales.

LSC incurred $51,000 and $80,000 as commission expenses during the years ended December 31, 2014 and 2013, respectively, under the terms of this arrangement and agreement.

Customer Concentration

During the year ended December 31, 2014 for the Biomedical market segment, one major customer accounted for approximately 21% of consolidated revenues. During the year ended December 31, 2013 for the Biomedical market segment, one major customer accounted for 17% of consolidated revenues and another major customer accounted for approximately 10% of consolidated revenues. No other single customer accounted for more than 10% of revenues for any period presented.

11. Segments and Geographic Information

The Company's chief operating decision-maker reviews financial information presented on a consolidated basis, accompanied by disaggregated information by each reportable company's statement of operations. The Company operates the business on the basis of three reporting segments, the parent company and two wholly-owned subsidiaries:

International Stem Cell Corporation, a research and development company, for the Therapeutic Market for clinical applications of hpSCs for the treatment of various diseases such as Parkinson's disease, liver diseases and corneal blindness;

Lifeline Skin Care, Inc. for the Cosmeceutical Market, which develops, manufactures and markets a category of cosmetic skin care products based on biotechnology with human stem cells;

Lifeline Cell Technology, LLC for the Biomedical Market, which develops, manufactures and commercializes primary human cell research products including over 130 human cell culture products, including frozen human "primary" cells and the reagents (called "media") needed to grow, maintain and differentiate the cells;

Cyto Therapetuics, PTY LTD, a research and development company for the Therapeutic Market, which conducts clinical trials in Australia for the use of hpSCs in the treatment of Parkinson's disease.

Revenues, Expenses and Operating Income (loss)

The Company does not measure the performance of its segments on any asset-based metrics. Therefore, segment information is presented only for operating income (loss). Revenues, expenses and operating income (loss) by market segment were as follows (in thousands):

	For the Years Ended Ended December 31,	
	2014	2013
Revenues:		
Cosmeceutical market	$ 3,507	$ 3,204
Biomedical market	3,510	2,943
Total revenues	7,017	6,147
Operating expenses:		
Therapeutic market	9,695	8,200
Cosmeceutical market	3,253	2,914
Biomedical market	2,749	2,579
Total operating expenses	15,697	13,693
Operating income (loss):		
Therapeutic market	(9,695)	(8,200)
Cosmeceutical market	254	290
Biomedical market	761	364
Total operating loss	$(8,680)	$(7,546)

Geographic Information

The Company's wholly-owned subsidiaries are located in Maryland; California and Melbourne, Australia, and have customer and vendor relationships worldwide. Significant revenues in the following regions are those that are attributable to the individual country within the region to which the product was shipped (in thousands):

	For the Years Ended December 31,	
	2014	2013
North America	$ 5,632	$ 4,779
Asia	943	905
Europe	393	355
All other regions	49	108
Total	$ 7,017	$ 6,147

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the fees and expenses incurred or expected to be incurred by International Stem Cell Corporation in connection with the issuance and distribution of the common stock being registered hereby. All of the amounts shown are estimated except the SEC registration fee. Estimated fees and expenses can only reflect information that is known at the time of filing this registration statement and are subject to future contingencies, including additional expenses for future offerings.

Securities and Exchange Commission registration fee	$698
Transfer agent's fees and expenses	$ *
Printing and engraving expenses	$ *
Legal fees and expenses	$ *
Accounting fees and expenses	$ *
Miscellaneous expenses	$ *
Total	$ *

* To be filed by amendment.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act.

As permitted by the Delaware General Corporation Law, the Company's certificate of incorporation includes a provision to indemnify any and all persons it has power to indemnify under such law from and against any and all of the expenses, liabilities or other matters referred to in or covered by such law. In addition, the Company's certificate of incorporation includes a provision whereby the Company shall indemnify each of the Company's directors and officer in each and every situation where, under the Delaware General Corporation law the Company is not obligated, but is permitted or empowered to make such indemnification, except as otherwise set forth in the Company's bylaws. The Company's certificate of incorporation also includes a provision which eliminates the personal liabilities of its directors for monetary damages for breach of fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to the Company or its stockholders, (2) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (3) under Section 174 of the Delaware General Corporation Law or (4) for any transaction from which the director derived an improper personal benefit.

As permitted by the Delaware General Corporation Law, the Company's bylaws provide that (1) it is required to indemnify its directors to the fullest extent permitted by the Delaware General Corporation Law and may, if and to the extent authorized by the Board of Directors, indemnify its officers, employees or agents and any other person whom it has the power to indemnify against liability, reasonable expense or other matters and (2) the Company shall advance expenses to its directors and officer who are entitled to indemnification, as incurred, to its directors and officers in connection with a legal proceeding, subject to limited exceptions.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

During the three-year period preceding the date of the filing of this registration statement, we have issued securities in the transactions described below without registration under the Securities Act.

Issuance of stock for cash.

These securities were offered and sold by us in reliance upon exemptions from the registration statement requirements provided by Section 4(a)(2) of the Securities Act and/or Regulation D under the Securities Act as transactions by an issuer not involving a public offering.

From December 17, 2010 through March 15, 2013, as part of the Common Stock Purchase Agreement with Aspire, the Company issued 70,223 shares of common stock for an aggregate of $6,206,460.

On January 22, 2013, the Company issued 67,500 shares of common stock and warrants to purchase 33,750 shares of common stock to two accredited investors, each of whom was an executive officer of the Company, for an aggregate of $2,025,000.

On March 12, 2013, the Company issued 33,334 shares of common stock and warrants to purchase 16,667 shares of common stock to accredited investors, each of whom was a prior stockholder, for an aggregate of $1,000,000.

From December 11, 2013 through May 13, 2014 we sold 65,778 shares of common stock to Lincoln Park for an aggregate of $1,837,920 under the Purchase Agreement.

On May 29, 2014, the Company issued 22,223 shares of common stock to two accredited investors, each of whom was an executive officer of the Company, for an aggregate of $500,000.

On June 26, 2014, the Company issued 36,667 shares of common stock to two accredited investors, each of whom was an executive officer of the Company, for an aggregate of $550,000.

On August 6, 2014, the Company issued 40,000 shares of common stock to two accredited investors, each of whom was an executive officer of the Company, for an aggregate of $600,000.

From August 29, 2014 through October 10, 2014, the Company issued 800 shares of common stock to three executive officers of the Company, for an aggregate of $12,000.

On September 10, 2014, the Company issued 29,630 shares of common stock to two accredited investors, each of whom serves on the board of directors and serves as executive officer for a total purchase price of $400,000.

On October 14, 2014, the Company issued a total of 2,500 shares of its Series H Convertible Preferred Stock, par value $0.001 with a stated value of $1,000 per share, convertible into 258,519 shares of common stock based upon an initial conversion price of $9.67, Series A Warrants to purchase up to 258,519 shares of common stock at an initial exercise price of $13.82 price per share for a term of 5 ½ years, Series B warrants to purchase up to 258,519 shares of common stock at an initial exercise price of $9.67 per share for a term of six months, and Series C warrants to purchase up to 258,519 shares of common stock at an initial exercise price of $9.67 per share for a term of twelve months, for total proceeds of $2,500,000.

Issuances of stock on conversion of preferred stock.

On January 22, 2013, 53,334 shares of common stock were issued for the conversion of all 2,000,000 outstanding shares of Series C Preferred Stock. From November 26, 2014 through August 7, 2015, holders of Series H Preferred Stock converted 2,000 shares of preferred stock to 424,291 shares of common stock. All of these transactions were exempt issuances pursuant to Section 3(a)(9) of the Securities Act.

Issuances upon conversion or exercise of warrants.

From July 1, 2011 through November 20, 2015, we issued a total of 630,068 shares of common stock upon exercise or conversion of previously issued warrants. The issuances upon conversion were exempt from

registration pursuant to Section 3(a)(9) of the Securities Act and the issuance upon exercise were exempt from registration pursuant to Section 4(a)(2) of the Securities Act.

Issuance on exchange of warrants.

On June 16, 2014, the Company completed a series of exchange transactions with the holders of its Series A Warrants and Placement Agent Warrants that had been issued as part of a public offering consummated in July 2013. The Company issued a total of 297,772 shares of common stock to the warrant holders in exchange for the cancellation of warrants to purchase 243,699 shares of common stock and the placement agent warrants for purchase of 4,445 shares of common stock and warrants. These shares were issued in exchange for previously issued securities in a transaction exempt from registration pursuant to Section 3(a)(9) of the Securities Act.

ITEM 16. EXHIBITS

A list of exhibits filed herewith is contained in the exhibit index that immediately precedes such exhibits. These exhibits are included with this filing.

ITEM 17. UNDERTAKINGS

The undersigned registrant hereby undertakes:

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

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement;

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

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

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

(4) That for the purpose of determining the liability under the Securities Act of 1933 to any purchases, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) For the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities in a primary offering of securities of the

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

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

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

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

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

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

The undersigned Registrant hereby undertakes that it will:

(1) for determining any liability under the Securities Act, treat the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant under Rule 424(b)(1), or (4) or 497(h) under the Securities Act as part of this registration statement as of the time the Commission declared it effective.

(2) for determining any liability under the Securities Act, treat each post-effective amendment that contains a form of prospectus as a new registration statement for the securities offered in the registration statement, and that offering of the securities at that time as the initial bona fide offering of those securities.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has caused this Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Carlsbad, California on, November 25, 2015.

INTERNATIONAL STEM CELL CORPORATION

By: /s/ Andrey Semechkin
Andrey Semechkin
Chief Executive Officer

Pursuant to the requirements of the Securities Act, this Amendment No. 1 to Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature:	Capacity:	Date:
/s/ Andrey Semechkin Andrey Semechkin	Chief Executive Officer and Director (Principal Executive Officer)	November 25, 2015
/s/ Mahnaz Ebrahimi Mahnaz Ebrahimi	Chief Financial Officer (Principal Financial and Accounting Officer)	November 25, 2015
/s/ Charles J. Casamento* Charles J. Casamento	Director	November 25, 2015
/s/ Paul V. Maier* Paul V. Maier	Director	November 25, 2015
/s/ Russell Kern Russell Kern	Chief Scientific Officer and Director	November 25, 2015
/s/ Donald A. Wright* Donald A. Wright	Co-Chairman and Director	November 25, 2015

*By: /s/ Sofya Bakalova
Sofya Bakalova
Attorney-in-Fact

Table of Contents

EXHIBIT INDEX

Exhibit Number	Description
1.1**	Placement Agent Agreement
3.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.4 of the Registrant's Form 10-SB filed on April 4, 2006, File No. 000-51891).
3.2	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Preliminary Information Statement on Form 14C filed on December 29, 2006, File No. 000-51891).
3.3	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on June 4, 2012, File No. 000-51891).
3.4	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on July 28, 2015, File No. 000-51891).
3.5	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on May 6, 2011, File No. 000-51891).
4.1	Form of Specimen Common Stock Certificate. (incorporated by reference to Exhibit 4.1 of the Registrant's Form 10-KSB filed on April 9, 2007, File No. 000-51891).
4.2	Certification of Designation of Series B Preferred Stock (incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed on May 12, 2008, File No. 000-51891).
4.3	Certification of Designation of Series D Preferred Stock (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on January 5, 2009, File No. 000-51891).
4.4	Certificate of Designation of Series G Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on March 14, 2012, File No. 000-51891).
4.5	Form of Series A Warrant (incorporated by reference to Exhibit 4.7 of the Registrant's Form 8-K filed on July 19, 2013, File No. 000-51891)
4.6	Form of Placement Agent Warrant (incorporated by reference to Exhibit 4.10 of the Registrant's Form 8-K filed on July 19, 2013, File No. 000-51891).
4.7	Certification of Designation of Series H-1 Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.8	Certification of Designation of Series H-2 Preferred Stock (incorporated by reference to Exhibit 3.2 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.9	Form of Series A Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.10	Certification of Designation of Series H-1 Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.11	Form of Placement Agent Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.4 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.12**	Certificate of Designation for Series I Preferred Stock
4.13**	Form of Series A Warrant
4.14**	Form of Series B Warrant
5.1**	Opinion of DLA Piper LLP (US).

Table of Contents

Exhibit Number	Description
10.1*	International Stem Cell Corporation 2006 Equity Participation Plan (incorporated by reference to Exhibit 10.15 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.2	Common Stock Purchase Warrant issued with Multiple Advance Convertible Note (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on August 18, 2008, File No. 000-51891).
10.3*	Employment Agreement with Andrey Semechkin (incorporated by reference to Exhibit 10.4 of the Registrant's Form 8-K filed on January 5, 2009, File No. 000-51891).
10.4*	Employment Agreement with Russell Kern (incorporated by reference to Exhibit 10.5 of the Registrant's Form 8-K filed on January 5, 2009, File No. 000-51891).
10.5*	Form of Stock Option Agreement for stock options granted outside of the 2006 Equity Participation Plan (incorporated by reference to Exhibit 10.19 of the Registrant's Form 10-K filed on March 30, 2010, File No. 000-51891).
10.6*	Cell Culture Automation Agreement dated May 13, 2010 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on May 19, 2010, File No. 000-51891).
10.7*	2010 Equity Participation Plan (incorporated by reference to Appendix A of the Registrant's Schedule 14A filed March 30, 2010, File No. 000-51891).
10.8	Standard Multi-Tenant Office Lease – Gross Agreement, dated as of February 19, 2011, by and between the Company and S Real Estate Holdings, LLC (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed February 28, 2011, File No. 000-51891).
10.9	Series G Preferred Stock Purchase Agreement dated March 9, 2012 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on March 15, 2012, File No. 000-51891).
10.10	Amended and Restated Investors Rights Agreement dated March 9, 2012 (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on March 15, 2012, File No. 000-51891).
10.11	Management Rights Letter dated March 9, 2012 (incorporated by reference to Exhibit 10.3 of the Registrant's Form 8-K filed on March 15, 2012, File No. 000-51891).
10.12*	Agreement to Provide Consulting Services dated March 9, 2012, with Kenneth C. Aldrich (incorporated by reference to Exhibit 10.5 of the Registrant's Form 8-K filed on March 15, 2012, File No. 000-51891).
10.13*	Agreement to Provide Consulting Services dated March 9, 2012, with Jeffrey D. Janus (incorporated by reference to Exhibit 10.6 of the Registrant's Form 8-K filed on March 15, 2012, File No. 000-51891).
10.14	Dividend Waiver Agreement dated October 12, 2012 (incorporated by reference to Exhibit 10.29 of the Registrant's Form S-1 filed on October 18, 2012, File No. 333-184493).
10.15	Securities Purchase Agreement dated January 22, 2013 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on January 24, 2013, File No. 000-51891).
10.16	Form of Warrant Agreement for January 22, 2013 Purchase (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on January 24, 2013, File No. 000-51891).
10.17	Amended and Restated License Agreement with Advanced Cell Technology, Inc. dated February 7, 2013 (ACT IP) (incorporated by reference to Exhibit 10.1 of the Registrant's Amendment to Form 8-K filed on February 14, 2013, File No. 000-51891).

Table of Contents

Exhibit Number	Description
10.18	Amended and Restated License Agreement with Advanced Cell Technology, Inc. (UMass IP) (incorporated by reference to Exhibit 10.3 of the Registrant's Amendment to Form 8-K filed on February 14, 2013, File No. 000-51891).
10.19	Amended and Restated License Agreement dated February 7, 2013 with Advanced Cell Technology, Inc. (Infigen IP) (incorporated by reference to Exhibit 10.2 of the Registrant's Amendment to Form 8-K filed on February 14, 2013, File No. 000-51891).
10.20	Securities Purchase Agreement dated March 12, 2013 (incorporated by reference by Exhibit 10.1 of the Registrant's Form 8-K filed March 14, 2013, File No. 000-51891).
10.21	Form of Common Stock Warrant Agreement for March 2013 Securities Purchase (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed March 14, 2013, File No. 000-51891).
10.22	Amendment, effective July 1, 2011, to Standard Multi-Tenant Office Lease with S Real Estate Holdings LLC. (incorporated by reference to Exhibit 10.43 of the Registrant's Form 10-K filed on March 26, 2013, File No. 000-51891).
10.23	Securities Purchase Agreement dated May 29, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filedon June 4, 2014, File No. 000-51891).
10.24	Form of Warrant Exchange Agreement (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on June 12, 2014, File No. 000-51891).
10.25	Securities Purchase Agreement dated June 26, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on July 1, 2014, File No. 000-51891).
10.26	Securities Purchase Agreement dated August 6, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on August 6, 2014, File No. 000-51891).
10.27	Securities Purchase Agreement dated September 10, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on September 10, 2014, File No. 000-51891).
10.28	Form of Securities Purchase Agreement, dated October 7, 2014, between the Company and the purchasers thereto (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
10.29	Form of Registration Rights Agreement, (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
10.30	Amendment Agreement to Registration Rights Agreement, dated October 29, 2014, between the Company and certain purchasers thereto (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on November 18, 2014, File No. 000-51891).
10.31	Amendment dated November 13, 2014 to Amended and Restated Investor Rights Agreement dated as of March 9, 2012 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on November 18, 2014, File No. 000-51891).
10.32**	Waiver Agreement with all holders of Series G Preferred Stock, dated December 31, 2014, between the Company and holders thereto.
10.33	Common Stock Purchase Agreement dated as of December 10, 2013, with Lincoln Park Capital Fund, LLC (incorporated by reference by Exhibit 10.1 of the Registrant's Form 8-K filed December 11, 2013, File No. 000-51891)
10.34	Registration Rights Agreement dated as of December 10, 2013, with Lincoln Park Capital Fund, LLC (incorporated by reference by Exhibit 10.2 of the Registrant's Form 8-K filed December 11, 2013, File No. 000-51891).

Table of Contents

Exhibit Number	Description
10.35	Promissory Note dated May 6, 2015 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on May 8, 2015).
10.36	Note dated May 12, 2015 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on May 14, 2015).
10.37	Note issued on August 10, 2015 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on August 13, 2015).
10.38	Form of Note issued on September 9, 2015 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on September 9, 2015).
10.39	Form of Note issued on October 9, 2015 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on October 14, 2015).
10.40	Form of Note issued on November 3, 2015 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on November 4, 2015).
10.41**	Form of Purchase Agreement
21.1	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 of the Registrant's Form S-1 filed on December 17, 2010, File No. 333-171233).
23.1	Consent of Mayer Hoffman McCann P.C.
23.2**	Consent of DLA Piper LLP (US) (included in exhibit 5.1).
24.1***	Power of Attorney
101.INS XBRL	Instance Document.
101.SCH XBRL	Taxonomy Extension Schema.
101.CAL XBRL	Taxonomy Extension Calculation Linkbase.
101.DEF XBRL	Taxonomy Extension Definition Linkbase.
101.LAB XBRL	Taxonomy Extension Label Linkbase.
101.PRE XBRL	Taxonomy Extension Presentation Linkbase.

* Indicates management contract or compensatory plan.
** To be filed by amendment.
*** Previously filed.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the use of our report dated March 27, 2015, relating to the consolidated financial statements of **International Stem Cell Corporation and Subsidiaries** (which report includes an explanatory paragraph relating to the uncertainty of the Company's ability to continue as a going concern), as of and for the years ended December 31, 2014 and 2013, in this Amendment No. 1 to Form S-1 (Registration Statement No. 333-205193), and to all references to our Firm included in this Registration Statement.

/s/ Mayer Hoffman McCann P.C.
San Diego, California
November 25, 2015