As filed with the Securities and Exchange Commission on November 3, 2014

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

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)

JAY NOVAK
Chief Financial Officer
5950 Priestly Drive
Carlsbad, CA 92008
(760) 653-1126
(Name, address and telephone number of agent for service)

Copies to:
DOUGLAS REIN
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4365 Executive Drive, Suite 1100
San Diego, CA 92121-2133
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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement, determined by the selling stockholder.

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

	Amount	**Proposed maximum**	**Proposed maximum**	

Title of each class of securities to be registered	to be registered (1)	offering price per share (2)	aggregate offering price	Amount of registration fee
Common Stock, par value $0.001 per share, underlying Series H-1 and Series H-2 Preferred Stock, par value $0.001	77,555,452 (3)	$0.10	$7,755,545	$901.19
Total			$7,755,545	$901.19

(1) Pursuant to Rule 416 under the Securities Act of 1933, this registration statement includes an indeterminate number of additional shares that may be offered and sold to prevent dilution resulting from stock splits, stock dividends, recapitalizations or similar transactions.

(2) Calculated pursuant to Rule 457(c). The offering prices per share and aggregate offering prices are based on the average of high and low sales prices of the registrant's common stock on October 28, 2014, as reported on OTC Markets (OTCQB).

(3) Represents 200% of 38,777,726 shares of common stock that may be issued upon the conversion of 2,500 shares of the Company's Series H Convertible Preferred Stock.

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.

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The information in this prospectus is not complete and may be changed. The selling stockholders 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 offers to buy these securities in any state where the offer or sale of these securities is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 3, 2014

PRELIMINARY PROSPECTUS

INTERNATIONAL STEM CELL CORPORATION

77,555,452 Shares of Common Stock

This prospectus relates to the resale of up to 77,555,452 shares of our common stock by the selling stockholders named herein. On October 7, 2014, we entered into a securities purchase agreement 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"), pursuant to which we sold to the Purchasers (i) a total of 2,500 shares of our Series H-1 and Series H-2 Convertible Preferred Stock, par value $0.001 with a stated value of $1,000 per share (collectively, the "Series H Preferred Stock"), convertible into 38,777,726 shares of common stock based upon 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 at an initial exercise price of $0.0921 per share for a term of 5 ½ years, (iii) Series B warrants (the "Series B Warrants") to purchase up to 38,777,726 shares of common stock at an initial exercise price of $0.06447 per share for a term of six months, and (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 at an initial exercise price of $0.06447 per share for a term of twelve months. Pursuant to the terms of the registration rights agreement, as amended, we entered into with the Purchasers, we are initially required to register 200% of the number of shares of common stock currently underlying the Series H Preferred Stock. To the extent that one or more Purchasers elects to convert their respective shares of Series H Preferred Stock to acquire shares of our common stock, this prospectus may be used by the selling stockholders named under the section titled "Selling Stockholders" to resell their shares. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by any selling stockholder; however, we will receive proceeds upon exercise of the Warrants.

The selling stockholders may sell their respective shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may resell their respective shares of our common stock in the section titled "Plan of Distribution" beginning on page 58. Each selling stockholder may be deemed to be an "underwriter" within the meaning of the Securities Act in connection with such sales within the meaning of the Securities Act of 1933, as amended, with respect to any shares resold under this prospectus by such selling stockholder. Although we will pay the expenses incurred in registering the shares, we will not be paying any underwriting discounts or commissions in connection with the resale of the shares.

We will pay the expenses incurred in registering the shares, including legal and accounting fees. See "Plan of Distribution."

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 October 28, 2014 on the OTC QB was $0.10 per share.

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.

The date of this prospectus is , 2014.

INTERNATIONAL STEM CELL CORPORATION

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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 provided to you in connection with this offering. We have not, and the Purchasers have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell, nor purchasers are seeking an offer to buy, securities in any state where the offer or solicitation is not permitted. The information contained in this prospectus is complete and accurate as of the date on the front cover of this prospectus. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date. Neither the delivery of this prospectus nor any sale made in connection with this prospectus shall, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus or that the information contained by reference to this prospectus is correct as of any time after its date. 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

We are a biotechnology company focused on the development of therapeutic and biomedical research products and two revenue-generating businesses offering potential for increased future revenue.

We were in the development stage from inception through the quarter ended September 30, 2013. We exited the development stage based on a consistent, increasing revenue trend and more significant revenue generated from our two commercial businesses. We generated product revenues from our two commercial businesses of $6,147,000 for the year ended December 31, 2013. We currently have no revenue generated from our principal operations in therapeutic pre-clinical and clinical product development.

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.

- Retinals cells and three-dimensional eye structures including corneal cells and tissue to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

We are currently completing our IND-enabling preclinical studies on our most advanced program, the development of neural stem cells for the treatment of Parkinson's disease.

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 6 of this prospectus.

Recent Developments

On October 14, 2014, pursuant to a 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"), we sold in a private placement (the "Private Placement") (i) an aggregate of 2,500 shares of Series H 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 have a term of 5 ½ 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 have a term of 6 months, (iv) Series C warrants (the "Series C Warrants", together with the Series A Warrants, 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 have 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 antidilution 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 us to hold a special meeting of stockholders to seek stockholder approval of an increase in the number of authorized shares of common stock under our certificate of incorporation to 720,000,000 shares and approve a reverse stock split. In connection with the Private Placement, we also entered into a registration rights agreement, as amended, with the investors pursuant to which we are 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 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.

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.

H.C. Wainwright & Co. (the "Placement Agent") acted as the exclusive placement agent for the Offering 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 Offering, pursuant to the Engagement Letter, the Placement Agent received a placement agent fee of $200,000 and a warrant to purchase approximately 9.3 million 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 five and 1/2 years after the date of issuance.

The foregoing description of the Series H Preferred Stock and Warrants is only a summary and is not complete. For additional information about the terms of the Series H Preferred Stock and Warrants, see the section entitled "Description of Securities – Preferred Stock" and "Description of Securities – Warrants issued in the Private Placement", respectively, in this prospectus.

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.

The Offering

Common stock offered by the selling stockholders	77,555,452 shares, consisting of: • 38,777,726 shares issuable upon conversion of the Series H Preferred Stock • 38,777,726 shares we may issue to Purchasers pursuant to various stock price resets as prescribed in the Stock Purchase Agreement and the Certificate of Designation for the Series H Preferred Stock
Common stock outstanding as of October 15, 2014	224,304,073 shares(1)
Common stock to be outstanding after giving effect to the total issuance of 77,555,452 shares remaining to be sold to Purchasers under the Purchase Agreement registered hereunder	301,859,525 shares
Use of proceeds	We will not receive any proceeds from the sale by Purchasers in this offering of the shares of common stock issuable upon their conversion of Series H Preferred Stock. See "Use of Proceeds" of this prospectus.
OTC Markets (OTCQB) symbol	ISCO
Risk Factors	Investing in the securities involves substantial risks. See "Risk Factors" beginning on page 6 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 224,304,073 shares outstanding as of October 15, 2014 and excludes, as of that date:

- 27,032,993 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 $0.84 per share;
- 7,562,500 shares of common stock reserved for issuance under various outstanding warrant agreements, at an exercise price of $0.20 per share, and 200,000 shares of common stock reserved for issuance under other warrants, at an average exercise price of $1.75 per share;
- 97,660,131 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series B, Series D and Series G Preferred Stock;
- 8,532,791 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.

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 preclinical 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 financial statements as of and for the year ended December 31, 2013 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 2013, 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 burn rate as of the second quarter ended June 30, 2014 was approximately $560,000 per month excluding capital expenditures and patent costs averaging $93,000 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 2014 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 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 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.

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 primary human cell research products. The U.S. Government is considering significant changes in government spending and other governmental programs, with several automatic spending cuts being implemented. There are many variables in how these laws could be implemented that make it difficult to determine specific impacts on our customers, and we are unable to predict the impact that these automatic spending cuts would have on funding our customers receive. 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.

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 preclinical, clinical or other studies. In addition, varying agency interpretations of the data obtained from preclinical 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 preclinical 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 preclinical, 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 preclinical 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 Advanced Cell Technology, 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 Advanced Cell Technology 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 Advanced Cell Technology, 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 three and six months ended June 30, 2014, we derived approximately 19% and 20%, respectively, of our revenues from one customer.

During the three and six months ended June 30, 2014, one customer accounted for 19% and 20%, respectively, 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 October 15, 2014, Dr. Andrey Semechkin, Chief Executive Officer and Co-Chairman of the Board of Directors, and Dr. Ruslan Semechkin, Chief Scientific Officer of International Stem Cell and a director, beneficially own approximately 55% 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. Ruslan Semechkin 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 $0.06447 to $0.1900 per share as of October 15, 2014). 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 five series of preferred stock that remain outstanding, including Series B, Series D, Series G, Series H-1 and Series H-2 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 and Ruslan Semechkin, 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 38.8 million shares of our common stock, in addition to Series A, B, and C Warrants for 116.3 million 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 the 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.

Purchasers may ultimately convert all, some or none of the Series H Convertible Preferred Stock into shares of our common stock, exercise all, some or none of the Series A, B, and C warrants into shares of our common stock. Such shares acquired by the Purchasers may be sold, as Purchasers may sell all, some or none of those shares. Therefore, the conversion of the preferred stock and exercise of warrants by the Purchasers 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 Purchasers, 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 October 15, 2014, there were 133,402,332, warrants, for which we have reserved 133,402,332 shares of common stock, and 20,741,094 vested and 6,191,899 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.

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 6 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 will not receive any of the proceeds from the sale of the securities by the selling stockholders. 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 October 15, 2014, we had 224,304,073 shares of common stock outstanding, and approximately 641 holders of record of our common stock, and we had 5,302,543 shares of preferred stock outstanding, and eight holders of record of our preferred stock, with 5,302,543 shares of preferred stock being convertible into 136,437,857 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 2014, 2013, and 2012, are reported below:

	Market Price	
	High	Low
Fiscal Year 2014		
First Quarter	$0.28	$0.18
Second Quarter	$0.20	$0.07
Third Quarter	$0.15	$0.06
Fourth Quarter (through October 24, 2014)	$0.12	$0.07
Fiscal Year 2013		
First Quarter	$0.41	$0.19
Second Quarter	$0.34	$0.20
Third Quarter	$0.26	$0.13
Fourth Quarter	$0.27	$0.14
Fiscal Year 2012		
First Quarter	$0.68	$0.38
Second Quarter	$0.55	$0.21
Third Quarter	$0.40	$0.22
Fourth Quarter	$0.29	$0.16

SELLING STOCKHOLDERS

On October 14, 2014, Sabby Volatility Warrant Master Fund Ltd. and Sabby Healthcare Volatility Master Fund, Ltd. and Andrey and Ruslan Semechkin, the Company's Chief Executive Officer and Co-Chairman and Chief Scientific Officer and Director, respectively, collectively referred to as the selling stockholders, acquired an aggregate of 2,500 shares of newly created Series H-1 and Series H-2 Preferred Stock and Warrants for an aggregate purchase price of $2,500,000.

The Series H-1 Preferred Stock and the Warrants issued to Sabby Volatility Warrant Master Fund Ltd. and Sabby Healthcare Volatility Master Fund, Ltd. contain exercise and conversion limitations providing that a holder thereof may not convert or exercise (as the case may be) to the extent that, if after giving effect to such conversion or exercise (as the case may be), the holder or any of its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock immediately after giving effect to such conversion or exercise (as the case may be). However, the 4.99% limitation would not prevent a selling stockholder from acquiring and selling in excess of 4.99% of our common stock through a series of acquisitions and sales while never beneficially owning more than 9.99% in aggregate.

This prospectus relates to the resale by the selling stockholders from time to time of up to an aggregate of 77,555,452 shares that are issuable to the selling stockholders. Pursuant to a Registration Rights Agreement between us and the selling stockholders, this prospectus covers the resale of (i) 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock and (ii) any securities issued or then issuable upon any stock split, dividend or other distribution, within thirty calendar days of the closing of the offering. We also agreed to register 100% of the shares of Common Stock issuable upon exercise of the Warrants.

The table below, which was prepared based on information supplied to us by the selling stockholders, sets forth information regarding the beneficial ownership of outstanding shares of our common stock owned by the selling stockholders and the shares that they may sell or otherwise dispose of from time to time under this prospectus. Each of the selling stockholders, or their respective affiliates, transferees, donees or their successors, may resell, from time to time, all, some or none of the shares of our common stock covered by this prospectus, as provided in this prospectus under the section entitled "Plan of Distribution" and in any applicable prospectus supplement. However, we do not know when, in what amount, or at what specific prices the selling stockholders may offer their shares for sale under this prospectus, if any. Each selling stockholder's percentage of ownership in the following table is based upon 224,304,073 shares of our common stock outstanding as of October 15, 2014.

Information concerning any of the selling stockholders may change from time to time, and any changed information will be presented in a prospectus supplement as necessary. Please carefully read the footnotes located below the table in conjunction with the information presented in the table.

Selling Stockholder	Shares Beneficially Owned Before this Offering(1)	Percentage of Outstanding Shares Beneficially Owned Before this Offering	Shares to be Sold in this Offering(5)	Number Of Shares Beneficially Owned After this Offering(10)	Percentage of Outstanding Shares Beneficially Owned After this Offering(10)
Sabby Volatility Warrant Master Fund, Ltd.	62,044,360	21.67%(2)	31,022,180(6)	46,533,269	15.42%
Sabby Healthcare Volatility Master Fund, Ltd.	62,044,360	21.67%(2)	31,022,180(7)	46,533,269	15.42%
Andrey Semechkin	196,357,465	54.75%(3)(4)	11,788,428(8)	188,601,920	51.48%
Ruslan Semechkin	196,357,465	54.75%(3)(4)	3,722,660(9)	188,601,920	51.48%

(1) Includes all shares beneficially owned by the selling stockholders as of October 15, 2014.

(2) The Series H-1 Preferred Stock and the Warrants contain exercise and conversion limitations providing that a holder thereof may not convert or exercise (as the case may be) to the extent that, if after giving effect to such conversion or exercise (as the case may be), the holder or any of its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock immediately after giving effect to such conversion or exercise (as the case may be). Accordingly, the number of shares of common stock set forth in the table as being registered for a selling stockholder exceeds the number of shares of common stock that the selling stockholder could own beneficially at any given time through its ownership of the Series H-1 Preferred Stock and the Warrants. Sabby Management, LLC serves as the investment manager of this stockholder and shares voting and investment power with respect to these shares on behalf of this stockholder. As manager of Sabby Management, LLC, Hal Mintz also shares voting and investment power on behalf of this stockholder. Each of Sabby Management, LLC and Hal Mintz disclaim beneficial ownership over the securities covered by this prospectus except to the extent of their pecuniary interest therein.

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

(4) Includes 62,035,146 total number of common shares owned by Dr. Andrey Semechkin, Dr. Ruslan Semechkin, and X-Master, Inc. (an entity owned by Dr. Andrey Semechkin), as well as 134,322,319 shares issuable upon conversion of outstanding shares of preferred stock, warrants and options to purchase shares of common stock exercisable within 60 days of October 15, 2014.

(5) We have assumed that each share of Series H Preferred Stock is convertible into shares of common stock at a conversion price of $0.06447 per share of common stock. Includes 200% of the shares of Common Stock issuable upon conversion of the Series H Preferred Stock.

(6) Includes 200% of 15,511,090 shares of Common Stock issuable upon conversion of Series H-1 Preferred Stock held by the holder.

(7) Includes 200% of 15,511,090 shares of Common Stock issuable upon conversion of Series H-1 Preferred Stock held by the holder.

(8) Includes 200% of 5,894,214 shares of Common Stock issuable upon conversion of Series H-2 Preferred Stock held by the holder.

(9) Includes 200% of 1,861,330 shares of Common Stock issuable upon conversion of Series H-2 Preferred Stock held by the holder.

(10) Assumes the sale of all shares of common stock registered pursuant to this prospectus, although the selling stockholders are under no obligation known to us to sell any shares of common stock at this time.

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 six months ended June 30, 2014 compared with the three and six months ended June 30, 2013

Revenues

Revenue for the three months ended June 30, 2014, totaled $1.59 million, compared to $1.46 million for the three months ended June 30, 2013. LCT contributed $842,000 or 53% of total revenue for the three months ended June 30, 2014, compared to $748,000 or 51% for the three months ended June 30, 2013. The increase of $94,000 or 13% in LCT's revenue for 2014 was driven primarily by higher sales to OEM customers and international distributors. LSC's revenue of $746,000 for the three months ended June 30, 2014 accounted for 47% of total revenue, compared to $709,000 or 49% of total revenue for the three months ended June 30, 2013. The increase of $37,000 or 5% in LSC's revenue is due to our strategic efforts to expand and diversify sources of revenue across all channels. We saw the greatest sales growth in website sales and professional accounts.

For the six months ended June 30, 2014 and 2013, revenue was $3.24 million and $2.74 million, respectively. LCT contributed $1.69 million or 52% of total revenue in the six months ended June 30, 2014, compared to $1.38 million or 50% of total revenue for the six months ended June 30, 2013. LCT's revenue increased by $305,000 or 22%, primarily due to higher sales to OEM customers and international distributors. LSC's revenue of $1.55 million or 48% of total revenue in the six months ended June 30, 2014, compared to $1.36 million or 50% of total revenue in the six months ended June 30, 2013. The increase of $190,000 or 14% in LSC's revenue was a result of our strategic efforts to expand and diversify our sources of revenue.

Cost of sales

Cost of sales for the three months ended June 30, 2014 was $409,000 or 26% of revenue, compared to $329,000 or 23% of revenue for the three months ended June 30, 2013. The increase in cost of sales as a percentage of revenue is partially attributable to a 3% increase in costs for LCT and a 2% increase in costs for LSC. LCT's cost of sales for the three months ended June 30, 2014 was $317,000 or 38% of sales, compared to $260,000 or 35% of sales for the three months ended June 30, 2013. The increase in cost of sales for LCT is primarily due to a shift in sales mix from higher margin products to lower margin products for the three months ended June 30, 2014, compared to the corresponding period in 2013. LSC's cost of sales was $91,000 or 12% of sales for the three months ended June 30, 2014, compared to $69,000 or 10% of sales for the three months ended June 30, 2013. The increase in cost of sales for LSC is primarily attributable to a shift in our sales mix to a lower portion of our sales recorded from ecommerce compared to other sales channels.

Cost of sales for the six months ended June 30, 2014 was $848,000 or 26% of revenue, compared to $663,000 or 24% of revenue for the same period in 2013. The increase in cost of sales as a percentage of revenue is partially attributable to a 2% increase in costs for LCT and a 1% increase in costs for LSC. LCT's cost of sales for the six months ended June 30, 2014 was $676,000 or 40% of sales, compared to $523,000 or 38% of sales for the six months ended June 30, 2013. The increase in cost of sales for LCT is primarily due to a shift in sales mix from higher margin products to lower margin products for the six months ended June 30, 2014, compared to the corresponding period in 2013. LSC's cost of sales was $172,000 or 11% of sales for the six months ended June 30, 2014, compared to $140,000 or 10% of sales for the six months ended June 30, 2013. The increase in the cost of sales for LSC is primarily due to a shift in our sales mix to a lower portion of our sales recorded from ecommerce compared to other sales channels.

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 $1.41 million for the three months ended June 30, 2014, compared to $974,000 for the same period in 2013. The increase of $437,000 or 45% is primarily due to increased stem cell line research and clinical testing expenses of $591,000, partially offset by lower employee-related spending of $72,000, consulting costs of $40,000, and stock-based compensation expense of $20,000.

Research and development expenses for the six months ended, June 30, 2014 were $2.37 million, compared to $1.70 million for the same period in 2013. The increase of $674,000 or 40% was primarily due to higher stem cell line research and clinical testing expenses of $816,000, partially offset by lower employee-related spending of $48,000, consulting costs of $39,000, and stock-based compensation expense of $34,000.

R&D is 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. Building on the NHP PD pilot study, in May 2013 we initiated a large-scale pharmacology/toxicology primate study, which is intended to form a critical component of our Investigational New Drug (IND) application that we anticipate filing in late 2014 or early 2015. We anticipate increased R&D expenditures in 2014 and 2015 as a result of this large-scale primate study and the added costs associated with the preparation of the IND application.

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 June 30, 2014 were $679,000, approximating the same amount as the corresponding period in 2013.

Selling and marketing expenses for the six months ended June 30, 2014 were $1.35 million, compared to $1.19 million in the six months ended June 30, 2013. The increase of $157,000 or 13% was due to higher employee-related spending of $68,000, consulting expenses of $83,000, expenses for marketing materials, samples and printing of $102,000, and trade show costs of $26,000. Commission expense increased $43,000 as a result of higher sales. The increase was partially offset by a reduction of $142,000 in advertising expense.

We continued to intensify our marketing efforts by refining our sales and marketing strategies, and 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 June 30, 2014 were $1.33 million, reflecting a decrease of $333,000 or 20%, compared to $1.67 million for the same period in 2013. The decrease is primarily attributable to decreases in employee-related spending of $161,000, stock-based compensation expense of $62,000, filing fees of $47,000, temporary service costs of $61,000, stock-based compensation for services provided by consultants of $26,000, legal fees of $16,000, and board of director fees of $8,000. The decreases were partially offset by increases in audit and accounting related fees of $17,000, and investor relations related costs of $59,000.

General and administrative expenses for the six months ended June 30, 2014 were $2.98 million, reflecting a decrease of $117,000 or 4%, compared to $3.10 million for the same period in 2013. The decrease is primarily attributable to decreases in employee-related spending of $134,000, stock-based compensation expense of $127,000, filing fees of $24,000, temporary service costs of $18,000, stock-based compensation for services provided by consultants of $58,000, legal fees of $13,000, and board of director fees of $16,000. The decreases were partially offset by increases in audit and accounting related fees of $39,000, and investor relations related costs of $221,000.

Other Income/Expense

Other expense was $2.17 million for the three months ended June 30, 2014, primarily due to recognizing loss of $3.45 million for the warrant exchange inducement expense offset by the income of $1.27 million for the change in fair value of the warrant liability from our registered stock and warrant offering completed in July 2013, due to the subsequent final revaluation of the warrant liability during the current quarter prior to the completion of the exchange of the warrants for our common stock in June 2014. In 2013, we recorded other expense of $10,000 during the corresponding period.

Other expense for the six months ended June 30, 2014 was $1.54 million, due to recognizing loss of $3.45 million for the warrant exchange inducement expense offset by the income of $1.89 million for the change in fair value of the warrant liability from our registered stock and warrant offering completed in July 2013, due to the subsequent revaluation of the warrant liability at each balance sheet date and the final revaluation prior to the completion of the exchange of the warrants for our common stock. We recorded other expense of $9,000 during the six months ended June 30, 2013.

Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

Revenues

Revenue for the year ended December 31, 2013, totaled $6.15 million, compared to $4.57 million in 2012. LCT contributed $2.94 million or 48% of total revenue in 2013, compared to $2.38 million or 52% of total revenue in 2012. The increase of $560,000 or 24% in LCT's revenue for 2013 was driven primarily by higher sales to OEM customers and international distributors. LSC's revenue of $3.21 million in 2013 accounted for 52% of total revenue, compared to $2.19 million or 48% of total revenue in 2012. In 2013, LSC's revenue increased by $1.02 million or 47% partially due to the one-time recognition of deferred revenue related to a change in estimate for our 30-day product return guarantee. We previously deferred all revenues from website sales until our 30-day product return guarantee had lapsed. In 2013, due to more reliable information available on actual historical returns for the two years ended December 31, 2013 and 2012, we were able to refine our estimated rate of return. As a result of the change in estimate, we recognized previously deferred revenue of $277,000 and recorded an allowance for sales returns of $10,000, which is approximately 3% of one month's sales. The remainder of the revenue increase is due to our strategic efforts to expand and diversify sources of revenue across all channels. We saw the greatest sales growth in website sales and professional accounts.

Cost of Sales

Cost of sales for the year ended December 31, 2013 was $1.64 million or 27% of revenue, compared to $1.27 million or 28% of revenue in 2012. The favorable reduction in cost of sales as a percentage of revenue in 2013 is primarily attributable to improvements in the manufacturing and supply chain management for LSC's products resulting in a 3% decrease in cost of sales partially offset by a 2% increase in cost of sales for LCT primarily due to an $82,000 increase in the reserve for inventory obsolescence and expiration.

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 $3.56 million for the year ended December 31, 2013, compared to $3.60 million in 2012. R&D expense decreased approximately $39,000 or 1%. R&D is 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. Building on the NHP PD pilot study, in May 2013 we initiated a large-scale pharmacology/toxicology primate study, which is intended to form a critical component of our Investigational New Drug (IND) application that we anticipate filing in late 2014 or early 2015. We anticipate increased R&D expenditures in 2014 and 2015 as a result of this large-scale primate study and the added costs associated with the filing of the IND application.

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, 2013 amounted to $2.46 million, reflecting an increase of approximately $392,000 or 20%, as compared to $2.07 million in 2012. The increase in spending was primarily driven by enhanced efforts in e-commerce marketing support, promotion and advertising expense of approximately $247,000, increased employee-related spending of $126,000 due to increased staff, increased website costs of $52,000, and incentive plan accrual of $81,000, logistics related costs of $86,000, increased trade show expenses of $49,000 with resulting higher travel and meals expense of $42,000, increased rent and utilities of $26,000, and higher commission expense of $17,000. The increase was partially offset by a reduction of $246,000 in consulting expenses, $71,000 in stock-based compensation and stock issued for consulting costs, and $16,000 in product testing costs.

The increase in commission expense was due to increased sales during 2013 over 2012, but was partially offset by a savings of $69,000 in 2013 from 2012 due to reductions in a marketing arrangement with a consultant who promotes, markets, and sells skin care products for LSC. Prior and up to June 30, 2012, we incurred a 20% marketing fee on net profits generated from the consultant's proprietary mailings. Subsequently in July 2012, we 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. For the month of December 2012, the commission rate was temporarily increased to 25% on net revenues derived from direct sales on qualifying volume of orders. For the years ended December 31, 2013 and 2012, we recorded $80,000 and $149,000, respectively, as commission expense related to this agreement.

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2013 were $6.03 million, reflecting a decrease of $1.41 million or 19%, compared to $7.44 million in 2012. The decrease is primarily attributable to a more streamlined operating cost structure including lower employee stock-based compensation of $684,000, reduced employee-related spending of $664,000 resulting from lower headcount, lower legal fees of $257,000, lower consulting expense of $253,000, lower corporate support expenses of $184,000, lower professional accounting fees of $132,000, a decrease in impairment of intangible assets totaling $138,000, lower board of director fees of $116,000, and lower travel and meals expense of $72,000. The decrease was partially offset by an increase in consulting fees for investor relations of $454,000, an incentive plan accrual of $230,000, an increase in stock-based compensation for services provided by consultants of $216,000, and higher temporary labor expense of $164,000.

Other Income/Expense

Other expense was $2.93 million for the year ended December 31, 2013, 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 at each balance sheet date and upon warrant exercises. In 2012, we recorded other expense of $20,000.

Liquidity and Capital Resources

Three and six months ended June 30, 2014 compared with the three and six months ended June 30, 2013

As of June 30, 2014, our cash and cash equivalents totaled $748,000, compared to $2.24 million as of December 31, 2013. At June 30, 2014, we had a working capital balance of $1.17 million, compared to a $2.40 million deficit as of December 31, 2013. The positive change in our working capital from a deficit at December 31, 2013 is primarily due to removal of the fair value of warrant liability from our balance sheet as of the end of the current quarter resulting from the exchange of warrants for common stock.

Operating Cash Flows

Net cash used in operating activities was $3.36 million for the six months ended June 30, 2014, compared to $2.89 million for the corresponding period in 2013. The primary factor contributing to the variability in the reported cash flow amounts relates to the net loss after non-cash adjustments totaling $3.20 million in the six months ended June 30, 2014, compared to $2.63 million for the same period in 2013.

Investing Cash Flows

Net cash used in investing activities was $558,000 for the six months ended June 30, 2014, compared to $373,000 in the same period in 2013. The increase was the result of higher payments for capital expenditure of $207,000, partially offset by lower patent licenses and trademarks spending of $21,000.

Financing Cash Flows

Net cash provided by financing activities was $2.42 million for the six months ended June 30, 2014, compared to $3.27 million in the same period in 2013. Approximately $1.42 million of the net proceeds of $2.42 million received in 2014 was attributable to the issuance of 8.2 million 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 $1.1 million from the sale of 8.8 million shares to Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer and Dr. Ruslan Semechkin our Chief Scientific Officer and a director. The shares were offered and sold to the purchasers in a private placement transaction. Under our purchase agreement with Lincoln Park, we may sell from time to time up to an aggregate of $10.25 million of shares of common stock to Lincoln Park through January 2017.

During the six months ended June 30, 2013, the Company has issued an additional 16.3 million shares of common stock in transactions that were not registered under the Securities Act of 1933. The Company issued a total of 1.2 million shares of common stock on various dates from January 1, 2013 through March 15, 2013 raising $264,000 from stock purchases by Aspire Capital, issued a total of 10.1 million shares of common stock on January 22, 2013 raising $2,025,000 from Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer and Dr. Simon Craw, Company's Executive Vice President Business Development, and issued 5 million shares of common stock on March 12, 2013 raising $1,000,000 from a stock purchase by Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer and by other investors with long-standing relationships with and who closely follow the Company. For further discussion of these transactions, see Note 6, Capital Stock, *Common Stock Transactions* to our condensed consolidated financial statements.

Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

As of December 31, 2013 and 2012, our cash and cash equivalents totaled $2.24 million and $654,000, respectively. At December 31, 2013 we had a working capital deficit of $2.40 million compared to working capital of $395,000 at December 31, 2012. The working capital deficit is due to the fair value of warrant liability of $4.93 million resulting from our S-1 July Registered Offering completed in July 2013.

Operating Cash Flows

Net cash used in operating activities was $5.64 million for the year ended December 31, 2013, compared to $6.69 million in 2012. The primary factor contributing to the variability in the reported cash flow amounts relates to the lower net loss after non-cash adjustments totaling $4.96 million in 2013, compared to $6.70 million in 2012.

Investing Cash Flows

Net cash used in investing activities was $896,000 for the year ended December 31, 2013, compared to $786,000 in 2012. Patent related spending approximated $729,000 during 2013. In addition, purchases of property and equipment totaling approximately $167,000 in 2013 consisted primarily of laboratory equipment, software, leasehold improvements and computer equipment.

Net cash used in investing activities was $786,000 for the year ended December 31, 2012. Purchases of property and equipment of $197,000 in 2012 consisted primarily of laboratory equipment, furniture, computer equipment and leasehold improvements related to new corporate offices. In addition, we made payments for patent licenses of $596,000 during 2012.

Financing Cash Flows

Net cash provided by financing activities was $8.12 million for the year ended December 31, 2013, compared to $6.79 million in 2012.

During the year ended December 31, 2013, we issued an additional 16.3 million shares of common stock in transactions that were not registered under the Securities Act of 1933. We issued a total of 1.2 million shares of common stock on various dates from January 1, 2013 through March 15, 2013 raising $264,000 from stock purchases by Aspire Capital, issued a total of 10.1 million shares of common stock on January 22, 2013 raising $2,025,000 from Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer and Dr. Simon Craw, our Executive Vice President Business Development, and issued 5 million shares of common stock on March 12, 2013 raising $1,000,000 from a stock purchase by Dr. Andrey Semechkin and by other investors with long-standing relationships with and who closely follow the Company.

On July 24, 2013, we completed a financing transaction under a Form S-1 Registration Statement filed with the U.S. Securities and Exchange Commission raising approximately $2.4 million in net proceeds (the "S-1 July Registered Offering"). Also during the third and fourth quarters of 2013, we raised additional net proceeds of $2.4 million upon partial exercise of the Series A and B Warrants issued as part of the S-1 July Registered Offering.

In December 2013 we entered into a purchase agreement with Lincoln Park Capital Fund, LLC ("Lincoln Park"), pursuant to which Lincoln Park has agreed to purchase from us up to an aggregate of $10.25 million of our common stock (subject to certain limitations) from time to time through January 2017. Of the aggregate $10.25 million of our common stock that may be sold to Lincoln Park, on December 11, 2013, the trading day immediately preceding the date we first filed a registration statement for this transaction, we sold 1.67 million shares of our common stock to Lincoln Park for an aggregate purchase price of $250,000, which we refer to as the Initial Purchase. For further discussion of these transactions, see Note 6, Capital Stock, *Common Stock transactions* to our consolidated financial statements.

Net cash provided by financing activities was $6.79 million for the year ended December 31, 2012. We received approximately $4.94 million, net of stock issuance costs, from the issuance of five million shares of Series G Preferred Stock in 2012. For further

discussion, see Note 6, Capital Stock, *Series G Preferred Stock*. In addition, we raised $2.09 million from the issuance of 5,000,000 shares of common stock to Aspire Capital Group and paid dividends of $237,000 to our preferred stockholders.

Management is currently evaluating 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 equity and/or debt financings, license arrangements, grants and/or collaborative research arrangements to sustain our operations and develop products. Thereafter, we will need to raise additional working capital. 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 2014 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.

During the quarter ended December 31, 2013, we exited the development stage based on a consistent, increasing revenue trend and more significant revenue totals generated from our two commercial businesses. We had been in the development stage from inception through the quarter ended September 30, 2013, and have accumulated losses from inception through the quarter ended June 30, 2014, and expect to incur additional losses in the near future. 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 quarter ended June 30, 2014, our average burn rate was approximately $560,000 per month, excluding capital expenditures and patent costs averaging $93,000 per month. There can be no assurance that we will be successful in maintaining our normal operating cash flow and that the timing of our capital expenditures will result in cash flow sufficient to sustain our operations through 2014. As part of the June 2014 warrant exchange transaction discussed above, we agreed that until September 14, 2014 we would not issue additional shares in capital raising transactions other than in private placements to our officers and directors. 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 Advanced Cell Technology 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.

From July 1, 2014 through to August 6, 2014, we sold a total of 6.0 million shares of common stock for an aggregate of $600,000, as discussed in Note 12, Subsequent Event, to our condensed consolidated financial statements.

Off-Balance Sheet Arrangements

As of June 30, 2014, 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 year ended December 31, 2013, and expect to incur additional losses in the near future. We currently have no revenue generated from our principal operations in therapeutic preclinical and clinical product development through our research and development efforts.

Inventories

We account for inventory using the first-in, first-out (FIFO) method for our Lifeline Skin Care products, Lifeline Cell Technology cell culture media and reagents, 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 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 us on January 1, 2017. Early application is not permitted. The standard permits the use of either the retrospective or cumulative effect transition method. We are currently evaluating the effect that ASU 2014-09 will have on our consolidated financial statements and related disclosures. We have not yet selected a transition method nor have we determined the effect of the standard on our ongoing financial reporting.

In July 2013, the FASB issued an accounting standards update that provides explicit guidance on the financial statement presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The guidance is effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2013. The Company has adopted this guidance at the beginning of the first quarter of fiscal year 2014. The adoption of this standard does not have a material impact on the Company's financial position, results of operations or related financial statement disclosures.

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 the development of therapeutic and biomedical research products and two revenue-generating businesses offering potential for increased future revenue.

We were in the development stage from inception through the quarter ended September 30, 2013. We exited the development stage based on a consistent, increasing revenue trend and more significant revenue generated from our two commercial businesses. We generated product revenues from our two commercial businesses of $6.1 million and $4.6 million for the years ended December 31, 2013 and 2012, respectively. We currently have no revenues generated from our principal operations in therapeutic pre-clinical and clinical product development.

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 human 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 are currently completing our IND-enabling pre-clinical studies on our most advanced program, the development of neural stem cells for the treatment of Parkinson's disease.

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.

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.

Cosmeceutical Market – Skin Care Products

Anti-aging represents a significant portion of the facial skincare market and seems to be resilient to a recessionary economy. In key markets such as the U.S. and Asia, we believe that the facial skincare market is positioned for significant growth.

In order to make claims that products can actually diminish the signs of aging, marketers are constantly looking for new combinations of specialty ingredients. The category of skincare products based on biotechnology such as human stem cells is just beginning to be developed, and therefore we believe that it has 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 the retail and professional channels.

Our wholly-owned subsidiary, Lifeline Skin Care, Inc. ("LSC"), develops, manufactures and markets cosmetic skin care products to address this significant market opportunity. LSC has several products, which include our proprietary stem cell extract.

LSC's products are sold nationally and internationally through a branded website; through professional channels (including dermatologists; plastic surgeons; medical, day and resort spas,) and distributors. Domestically, we plan to increase distribution of our products by increasing brand awareness and resonance through advertising, sales promotion and public relations. Internationally, we are increasing distribution and sales through agreements with specialty distributors in both Latin America and Asia.

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 130 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. On December 28, 2006 pursuant to a Share Exchange Agreement, BTHC III, Inc. issued 33,156,502 shares of common stock, representing approximately 93.7% of the common stock outstanding immediately after the transaction, to the shareholders of International Stem Cell Corporation, a California corporation ("ISC California"), in exchange for all outstanding stock of ISC California. As a result of this transaction, ISC California became wholly-owned by ISCO. This transaction was accounted for as a reverse merger for accounting purposes. On January 29, 2007, we changed our name to International Stem Cell Corporation.

ISC California was incorporated in California in June 2006 for the purpose of restructuring the business of Lifeline Cell Technology, LLC ("LCT"), which was organized in California in August 2001. As a result of the restructuring, 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 preclinical 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 are currently completing out IND-enabling pre-clinical studies on our most advanced program, the development of neuronal cell for the treatment of Parkinson's disease.

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.

Skin Care Products

ISCO's LSC subsidiary has developed daytime, nighttime and eye treatments, all of which use patented growth factors that have been extracted from human parthenogenic stem cells. The daytime treatment helps protect and defend the skin from environmental and chronological aging. The nighttime serum helps nurture collagen and elastin and helps build firmer, smoother, younger and healthier-looking skin. The eye treatment helps firm and tighten the more fragile skin around the eyes.

Research Products

ISCO's LCT subsidiary develops, manufactures and commercializes over 130 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 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

Anti-aging represents a significant portion of the facial skincare market. Despite the recessionary economy, sales of anti-aging products continue to increase. Because consumers have limited discretionary spending, they are attracted to skincare products that are innovative, technologically advanced, and are recommended by a professional whom they know and trust.

Innovation is present at all levels of the market. In order to make claims that their products can actually diminish the signs of aging, marketers are constantly looking for new combinations of specialty ingredients—compounds that provide a demonstrable cosmetic or therapeutic effect. The category of "bio-tech" skin care is a whole new opportunity that is just beginning to be developed.

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. It is estimated that the combined academic and government markets comprise approximately 40% of the total market and that the industrial segment comprises approximately 60%. 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.

The global market for human cell systems for use in basic research exceeds several hundred million dollars annually with continuing anticipated growth.

Intellectual Property

Patents

In 2014 we were granted two patents, covering different aspects and applications of our proprietary parthenogenetic technology. The first patent issued in Japan, covered various aspects of obtaining human embryonic stem cells using parthenogenetically activated oocytes. We currently have patents covering this technology in United States, Israel, Russia, South Korea and South Africa and additional patent applications are pending in other countries. The second patent issued in Russia covers the derivation of patient-specific stem cell lines from parthenogenetic blastocysts. We currently have a patent covering this technology in Israel. 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, methods to differentiate stem cells and methods to produce three dimensional corneal tissue constructs.

In addition, we have obtained exclusive worldwide licenses to patents and patent applications from Advanced Cell Technologies, Inc. ("ACTC"). 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. We also have an exclusive license to the only patent issued by the US Patent & Trademark Office for the creation of human Embryonic Stem cells ("hES") using somatic cell nuclear transfer ("SCNT") for human therapeutic use. 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 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.

License Agreements

In May 2005, we entered into three exclusive license agreements ("ACT IP," "Infigen IP," and "UMass IP" or collectively "ACTC agreements") with Advanced Cell Technology ("ACTC") 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 ACTC's 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 ACTC 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 ACTC.

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, has 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 US and other major markets with respect to such research, while the Institute has retained such rights in Russia.

In 2013 and 2012, ISCO spent $3.6 million and $3.6 million per year on research and development activities. 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.

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., Advanced Cell Technology Inc., BioTime, Neuralstem, Inc., ReNeuron, StemCells, Inc. 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 27% of our sales in 2013 were from two customers. We anticipate increased sales in 2014 through our newly established distributors in Asia and India.

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.

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 preclinical 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, preclinical 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 preclinical 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.

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") 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.

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 five executive officers, we utilize the services of 42 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.

During 2010 we utilized a 3,240 square foot laboratory in Walkersville, Maryland. Our lease for this facility expired in March 2011, and we moved into a new manufacturing facility in Frederick, Maryland which we use for laboratory and administration purposes. The current base rent is $11,105. The initial term of the lease ends 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 are as follows:

Name	Principal Occupation	Age
Andrey Semechkin	Co-Chairman and Chief Executive Officer	55
Jay Tibor Novak	Chief Financial Officer	49
John Simon Craw	Executive Vice President of Business Development	51
Ruslan Semechkin	Chief Scientific Officer	29
Sofya Bakalova	Director, Legal Affairs & Operations	30

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.

Jay Tibor Novak, Chief Financial Officer, Mr. Novak has over 18 years of experience in finance and accounting. He joined the Company in July 2011 and had been serving as Director of Finance since May 2012. Prior to joining the Company, Mr. Novak served as Financial Reporting Manager at Volcano Corporation, a medical device company, from April 2010 to June 2011, as a financial consultant from September 2009 until March 2010, and as Associate Director of Finance at Nanogen, Inc. from April 2007 until August 2009. He previously served as Associate Director of Finance at Elan Pharmaceuticals and as Assistant Director of Finance at Isis Pharmaceuticals. He is a certified public accountant, having begun his career with Deloitte & Touche, LLP. He received a B.S. in Accountancy from California State University, Long Beach, and an MBA from University of California, Irvine.

John Simon Craw, Ph.D., Executive Vice President of Business Development. Dr. Craw obtained his Ph.D. in Chemistry from the University of Manchester and began his career at the University of Rio de Janeiro followed by positions at the University of Sydney and the University of Manchester. He has over 18 years of experience in research and development as well as operations and information technology at Merck, Astra-Zeneca and Novartis and as head of R&D Informatics and Regulatory Operations at ACADIA Pharmaceuticals. Dr. Craw's has numerous scientific publications, has been a guest on numerous radio and television programs including National Public Radio and Fox News, and is a frequent speaker at international conferences.

Ruslan Semechkin, Ph.D, Chief Scientific Officer, became a Director in October 2008. Dr. Semechkin 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. Semechkin 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. Ruslan Semechkin is the son of Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer.

Sofya Bakalova, Director, 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

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 from 2004 to 2011. 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. Dr. Andrey Semechkin is the father of Dr. Ruslan Semechkin, Chief Scientific Officer and one of our directors.

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 both Pure Bioscience and Talon Therapeutics. Mr. Maier received an MBA from Harvard Business School and a BS from Pennsylvania State University.

Ruslan Semechkin, Ph.D, Director, Chief Scientific Officer, became a Director in October 2008. Dr. Semechkin 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. Semechkin 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. Ruslan Semechkin is the son of Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer.

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, 2013 and 2012, who are sometimes referred to herein as our named executive officers.

2013 Summary Compensation Table

Name	Year	Salary(1)	Bonus(2)	Option Awards ($) (3)	All Other Comp.	Total
Andrey Semechkin						
	2013	$258,457		$ 23,035		$281,492
	2012	$255,000		$ 176,840		$431,840
John Simon Craw						
	2013	$220,031		$ 17,332		$237,363
	2012	$215,769		$ 51,632		$267,401
Ruslan Semechkin						
	2013	$181,987		$ 16,176		$198,163
	2012	$176,539		$ 59,354		$235,893

(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.

On April 9, 2013 we granted options as follows: Dr. Andrey Semechkin 100,000 shares, Dr. Craw 75,000 shares, and Dr. Ruslan Semechkin 70,000 shares at an exercise price of $0.27. 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.

On May 28, 2012 we granted options as follows: Dr. Andrey Semechkin 750,000 shares at an exercise price of $0.32. These options expire on May 28, 2022. All of the shares in this grant were granted under the 2010 Equity Participation Plan. The options issued are subject to plan restrictions and vest at the rate of 2% per month commencing June 28, 2012.

On January 13, 2012 we granted options as follows: Dr. Craw 80,000 shares and Dr. Ruslan Semechkin 100,000 shares at the exercise price of $0.49. These options expire on January 13, 2022. All of the shares in this grant were granted under the 2010 Equity Participation Plan. The options issued are subject to plan restrictions and vest at the rate of 2% per month commencing February 13, 2012.

On June 22, 2012 we granted options as follows: Dr. Craw 75,000 shares and Dr. Ruslan Semechkin 75,000 shares at the exercise price of $0.38. These options expire on June 22, 2022. All of the shares in this grant were granted under the 2010 Equity Participation Plan. The options issued are subject to plan restrictions and vest at the rate of 2% per month commencing July 22, 2012.

Fair Value Assumptions

The following table sets forth the assumptions used in 2013 and 2012 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 2013	Year ended December 2012
Significant assumptions (weighted-average):		
Risk-free interest rate at grant date	1.02%	0.94%
Expected stock price volatility	116.53%	121.90%
Expected dividend payout	0%	0%
Expected option life-years based on management's estimate	6.08 years	5.69 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, 2013:

Outstanding Equity Awards at December 31, 2013

		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)	29,000	—	$ 0.49	2019
	2009(2)	1,190,000	70,000	$ 0.59	2019
	2011(4)	1,750,000	750,000	$ 1.93	2021
	2012(7)	285,000	465,000	$ 0.32	2022
	2013(9)	—	100,000	$ 0.27	2023
John Simon Craw					
	2010(3)	460,000	40,000	$ 1.58	2020
	2011(4)	210,000	90,000	$ 1.93	2021
	2011(5)	62,000	38,000	$ 1.10	2021
	2012(6)	36,800	43,200	$ 0.49	2022
	2012(8)	27,000	48,000	$ 0.38	2022
	2013(9)	—	75,000	$ 0.27	2023
Ruslan Semechkin					
	2008(1)	50,000	—	$ 0.22	2018
	2009(2)	240,000	10,000	$ 0.59	2019
	2011(4)	350,000	150,000	$ 1.93	2021
	2012(6)	46,000	54,000	$ 0.49	2022
	2012(8)	27,000	48,000	$ 0.38	2022
	2013(9)	—	70,000	$ 0.27	2023

(1) There were no unvested stock awards as of December 31, 2013.
(2) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on January 10, 2010.
(3) The stock option vested as to 1/50 th of the shares subject to the stock option on each month commencing on March 25, 2010.
(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, 2011.
(5) 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.
(6) 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.
(7) 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.
(8) 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.
(9) 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.

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 15,000,000 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 10,257,593 shares were issued outside the 2006 Equity Participation Plan. These grants include 8,620,715 shares that were issued with an exercise price of $.62 per share and 1,636,878 that were issued with an exercise price of $.59 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 18,000,000 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, 2013.

2013 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(4)	Fees Earned or Paid in Cash(1)	Restricted Stock Awards(2)	Total
Donald A. Wright	$ 57,500	$ 55,575	$113,075
Paul V. Maier	$ 32,500	$ 49,825	$ 82,325
Charles J. Casamento	$ 32,500	$ 49,825	$ 82,325
James H. Berglund(3)	$ 24,375	$ 20,313	$ 44,688

(1) Mr. Wright, Mr. Maier, Mr. Casamento and Dr. Berglund 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 January 2013, Mr. Wright, Mr. Maier, Mr. Casamento each received 162,500 shares of restricted stock, with one quarter vesting at the end of each fiscal quarter; and each received 40,000 shares of restricted stock granted on the date of the Annual Meeting in June 2013 and vesting on the earlier of twelve months from the date of grant or the date of the 2014 Annual Meeting. Dr. Berglund received an equal number of shares in January and June 2013, but forfeited 121,250 unvested shares upon his resignation from the Board. The restricted stock award amount represents the grant date fair value of the Company's stock.

(3) On September 15, 2013, Dr. Berglund resigned from the Board.

(4) As of December 31, 2013, Mr. Wright held 360,000 stock options and 292,500 shares of restricted stock; Mr. Maier held 260,000 stock options and 242,500 shares of restricted stock; Mr. Casamento held 150,000 stock options and 242,500 shares of restricted stock; Dr. Berglund held 271,250 shares of restricted stock.

In January 2013, 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 for his service as Co-Chairman), (ii) 162,500 shares of restricted stock, with one quarter vesting at the end of each fiscal quarter, and (iii) 40,000 shares of restricted stock granted on the date of the Annual Meeting and vesting on the earlier of twelve months from the date of grant or the date of the next annual meeting.

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, 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 has any material interest, direct or indirect, in any transaction for the past two years or in any presently proposed transaction to which we were or are to be party. 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, 2013, all such advances have been repaid in full.

As part of the Series D Financing Agreement, we have recognized in our 2012 and 2011 financial statements dividends paid of $55,123 and $99,726 in each of those fiscal years to X-Master, Inc. (an entity affiliated with Dr. Andrey Semechkin and Dr. Ruslan Semechkin, both of whom are directors and executive officers). Additionally, in 2012 and 2011, dividends of $181,907 and $329,095, respectively, were paid to Dr. Andrey Semechkin as part of the Series D Financing Agreement.

During the first quarter of 2011, we executed 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 2013 and 2012, the Company recorded $137,000 and $113,000 in rent expense, respectively, 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. Ruslan Semechkin, 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 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 our Co-Chairman and Chief Executive Officer. Dr. Simon Craw is 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 $0.20 per share) 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.

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 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 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 $0.20 per share) 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.

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. Ruslan Semechkin, 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. Ruslan Semechkin, 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. Ruslan Semechkin 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. Ruslan Semechkin, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, 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 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 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.

On June 26, 2014, to obtain funding for working capital purposes, we entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Ruslan Semechkin, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, 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.

On August 6, 2014 to obtain funding for working capital purposes, we entered into a securities purchase agreement with Dr. Andrey Semechkin and Dr. Ruslan Semechkin, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, 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.

From August 29, 2014 through October 10, 2014, we issued 120,000 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. Ruslan Semechkin, our Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, 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.

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 Ruslan Semechkin, 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 38.8 million shares of common stock at an initial exercise price of $0.0921 per share with a term of five and 1/2 years, Series B Warrants to purchase up to approximately 38.8 million shares of common stock at an initial exercise price of $0.06447 per share with a term of six months and Series C Warrants to purchase up to approximately 38.8 million shares of common stock at an initial exercise price of $0.06447 per share with a term of twelve months.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding the beneficial ownership of our common stock and our preferred stock as of October 15, 2014, 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 October 15, 2014 there were a total of 5,302,543 shares of preferred stock outstanding that were convertible into a total of 136,437,857 shares of common stock. Dr. Andrey Semechkin and Dr. Ruslan Semechkin, 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 100,762,350 shares of common stock. As such, Dr. Andrey Semechkin and Dr. Ruslan Semechkin control approximately 94.9% 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 October 15, 2014 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)	196,357,465	54.75%
John Simon Craw (2)(3)	1,246,250	*
Ruslan Semechkin (2)(3)(4)(5)(6)	196,357,465	54.75%
Paul Maier (2)(3)	796,653	*
Donald Wright (2)(3)	929,653	*
Charles Casamento (2)(3)	644,653	*
All Executive Officers and Directors as a Group (8 Persons)	200,218,274	55.52%
5% Holders		
X-Master, Inc. (4)	23,511,090	9.80%
AR Partners LLC (6)	26,309,115	10.50%

* less than 1%

(1) Based on 224,304,073 shares currently outstanding, plus shares issuable under derivative securities which are exercisable within 60 days of October 15, 2014.

(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 October 15, 2014 in the following amounts:
Dr. Andrey Semechkin, 134,322,319 shares; Dr. Craw, 1,061,250 shares; Dr. Ruslan Semechkin, 134,322,319 shares; Mr. Casamento, 150,000 shares; Mr. Maier, 260,000 shares; Mr. Wright, 360,000 shares; and All Executive Officers and Directors as a Group, 136,317,169 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. Ruslan Semechkin 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 Ruslan Semechkin.

(5) Pursuant to the applicable SEC rules, each of Dr. Andrey Semechkin and Dr. Ruslan Semechkin 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. Ruslan Semechkin. Dr. Ruslan Semechkin 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 Ruslan Semechkin.

DESCRIPTION OF SECURITIES

General

Our certificate of incorporation authorizes us to issue 620,000,000 shares of capital stock, $0.001 par value per share, of which 600,000,000 shares are designated common stock and 20,000,000 shares are designated preferred stock. As of October 15, 2014, there were issued and outstanding 224,304,073 shares of common stock, warrants of 133,402,332, for which we have reserved 133,402,332 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 2,500 shares of Series H 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 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 15.5 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 $0.06447 per share, which is the resulting conversion price following the October 2014 financing transaction.

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. Ruslan Semechkin, 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 $0.06447 per share, which is the resulting conversion price following the October 2014 financing transaction.

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. Ruslan Semechkin, Chief Scientific Officer and a director.

The Series G preferred stock was initially convertible into shares of common stock at $0.40 per share, resulting in conversion ratio of 2.5 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 $0.1900, and the conversion ratio is 5.2618 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-1 and H-2 Preferred Stock

We have a total of 2,500 shares of Series H-1 and H-2 preferred stock outstanding. These shares are held by outside investors and Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, and Dr. Ruslan Semechkin, Chief Scientific Officer and a director.

Subject to certain ownership limitations with respect to the Series H-1 Preferred Stock, the Preferred Stock is convertible at any time into shares of Common Stock at an initial conversion price of $0.06447 per share. The 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 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 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 their issuance date.

Warrants issued in the Private Placement

In the Private Placement, we issued (i) Series A Warrants (the "Series A Warrants") to purchase 38,777,726 shares of common stock at an initial exercise price of $0.0921 per share with a term of five and 1/2 years, (ii) Series B Warrants (the "Series B Warrants") to purchase 38,777,726 shares of common stock at an initial exercise price of $0.06447 per share with a term of six months and (ii) Series C Warrants (the "Series C Warrants", together with the Series A Warrants and the Series B Warrants, collectively, the "Investor Warrants") to purchase up to approximately 38,777,726 shares of common stock at an initial exercise price of $0.06447 per share with a term of twelve months. The exercise price of the Warrants is subject to certain reset adjustments as set forth in the 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 Warrants issued to Sabby Volatility Warrant Master Fund Ltd. and Sabby Healthcare Volatility Master Fund, Ltd. contain exercise and conversion limitations providing that a holder thereof may not convert or exercise (as the case may be) to the extent that, if after giving effect to such conversion or exercise (as the case may be), the holder or any of its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock immediately after giving effect to such conversion or exercise (as the case may be). However, the 4.99% limitation would not prevent such selling stockholder from acquiring and selling in excess of 4.99% of our common stock through a series of acquisitions and sales while never beneficially owning more than 9.99% in aggregate.

Registration Rights in the Private Placement

In connection with the Private Placement, we also entered into a registration rights agreement with the investors pursuant to which, as amended, we are obligated to file a registration statement to register the resale of (i) 200% of the shares of Common Stock issuable upon conversion of the 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 an effective registration statement covering the shares underlying the Series H Preferred Stock and the Warrants, including the failure of the Company to file a resale registration statement 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.

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.

PLAN OF DISTRIBUTION

Each Selling Stockholder (the "Selling Stockholders") of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

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

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

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

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

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because Selling Stockholders may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The Selling Stockholders have advised us that there is no underwriter or coordinating broker acting in connection with the proposed sale of the resale securities by the Selling Stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

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

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.

EXPERTS

The consolidated balance sheets of International Stem Cell Corporation and Subsidiaries as of December 31, 2013 and 2012, 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, incorporated herein, 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 six months ended June 30, 2014 and 2013 (unaudited)

Years Ended December 31, 2013 and 2012

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

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

	June 30, 2014 (Unaudited)	December 31, 2013
Assets		
Cash and cash equivalents	$ 748	$ 2,243
Accounts receivable, net of allowance for doubtful accounts of $19 at June 30, 2014 and December 31, 2013	406	306
Inventory, net	1,470	1,369
Prepaid expenses and other current assets	539	658
Restricted cash	50	50
Total current assets	3,213	4,626
Property and equipment, net	847	830
Intangible assets, net	2,522	2,250
Deposits and other assets	33	33
Total assets	$ 6,615	$ 7,739
Liabilities, Redeemable Preferred Stock and Stockholders' Deficit		
Accounts payable	$ 798	$ 532
Accrued liabilities	960	1,290
Deferred revenue	—	3
Related party payable	31	21
Advances	250	250
Fair value of warrant liability	—	4,925
Total current liabilities	2,039	7,021
Convertible Redeemable Series G Preferred stock, $0.001 par value, 5,000,000 shares authorized, issued and outstanding at June 30, 2014 and December 31, 2013, liquidation preference of $5,000 at June 30, 2014 and December 31, 2013	4,941	4,941
Commitments and contingencies		
Stockholders' Deficit		
Series D Preferred stock, $0.001 par value, 50 shares authorized, 43 issued and outstanding at June 30, 2014 and December 31, 2013, with liquidation preference of $4,320 at June 30, 2014 and December 31, 2013	—	—
Series B Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding at June 30, 2014 and December 31, 2013, with liquidation preferences of $412 and $403 at June 30, 2014 and December 31, 2013, respectively	—	—
Common stock, $0.001 par value, 600,000,000 and 300,000,000 shares authorized, 213,590,669 and 151,175,053 shares issued and		

outstanding at June 30, 2014 and December 31, 2013, respectively	214	151
Additional paid-in capital	87,537	77,897
Accumulated deficit	(88,116)	(82,271)
Total stockholders' deficit	(365)	(4,223)
Total liabilities, redeemable preferred stock and stockholders' deficit	$ 6,615	$ 7,739

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Revenues				
Product sales	$ 1,588	$ 1,457	$ 3,237	$ 2,742
Total revenue	1,588	1,457	3,237	2,742
Expenses				
Cost of sales	409	329	848	663
Research and development	1,411	974	2,369	1,695
Selling and marketing	679	679	1,348	1,191
General and administrative	1,332	1,665	2,980	3,097
Total expenses	3,831	3,647	7,545	6,646
Loss from operating activities	(2,243)	(2,190)	(4,308)	(3,904)
Other income (expense)				
Change in fair value of warrant liability	1,271	—	1,894	—
Warrant exchange inducement expense	(3,445)	—	(3,445)	—
Miscellaneous expense	—	(18)	—	(20)
Interest expense	(1)	(1)	(2)	(2)
Sublease income	8	9	16	13
Total other income (expense), net	(2,167)	(10)	(1,537)	(9)
Loss before income taxes	(4,410)	(2,200)	(5,845)	(3,913)
Provision for income taxes	—	—	—	—
Net loss	$ (4,410)	$ (2,200)	$ (5,845)	$ (3,913)
Net loss applicable to common stockholders	$ (4,410)	$ (2,200)	$ (5,845)	$ (3,913)
Net loss per common share-basic and diluted	$ (0.03)	$ (0.02)	$ (0.04)	$ (0.04)
Weighted average shares-basic and diluted	170,632	112,410	162,108	108,013

See accompanying notes to the unaudited condensed consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Deficit
For the Year Ended December 31, 2013 and the Six Months ended June 30, 2014
(in thousands)
(2014 Unaudited)

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock						Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Deficit
					Series B		Series C		Series D				
	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	—	$ —	$ 69,945	$ (71,792)	$ (1,758)
Issuance of common stock from conversion of Series C preferred stock			8,000	8			(2,000)	(2)			(6)		—
Issuance of common stock													
For cash, net of issuance costs of $178			37,991	38							3,343		3,381
For services			840	1							239		240
From exercises of warrants, net of commissions of $98			16,955	17							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	5,000	4,941	151,175	151	300	—	—	—	—	—	77,897	(82,271)	(4,223)
Issuance of common stock													
For cash, net of issuance costs of $169			17,033	17							2,452		2,469
For services			717	1							84		85
For warrant exchange, net of issuance costs of $49			44,666	45							6,383		6,428
Stock-based compensation											721		721
Net loss for the period ended June 30, 2014												(5,845)	(5,845)
Balance at June 30, 2014	5,000	$ 4,941	213,591	$ 214	300	$ —	—	$ —	—	$ —	$ 87,537	$ (88,116)	$ (365)

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Six Months Ended June 30,	
	2014	2013
Cash flows from operating activities		
Net loss	$ (5,845)	$ (3,913)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	234	231
Stock-based compensation expense	721	849
Common stock issued for services	85	137
Change in fair value of warrant liability	(1,894)	—
Warrant exchange inducement expense	3,445	—
Allowance for doubtful accounts	—	22
Allowance for inventory obsolescence	22	8
Loss on disposal of fixed assets	—	16
Impairment of intangible assets	36	19
Changes in operating assets and liabilities		
(Increase) decrease in accounts receivable	(100)	(203)
(Increase) decrease in inventory	(123)	(179)
(Increase) decrease in prepaid assets and other assets	119	(207)
Increase (decrease) in restricted cash	—	(50)
Increase (decrease) in deposit	—	(12)
Increase (decrease) in accounts payable	266	(226)
Increase (decrease) in accrued liabilities	(330)	659
Increase (decrease) in deferred revenue	(3)	(61)
Increase (decrease) in related party payable	10	17
Net cash used in operating activities	(3,357)	(2,893)
Investing activities		
Purchases of property and equipment	(218)	(11)
Proceeds from sale of property and equipment	1	—
Payments for patent licenses and trademarks	(341)	(362)

Net cash used in investing activities	(558)	(373)
Financing activities		
Proceeds from issuance of common stock	2,638	3,289
Payment of offering costs	(218)	(23)
Net cash provided by financing activities	2,420	3,266
Net increase (decrease) in cash and cash equivalents	(1,495)	—
Cash and cash equivalents, beginning of period	2,243	654
Cash and cash equivalents, end of period	$ 748	$ 654
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 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 $560,000 per month, excluding capital expenditures and patent costs averaging $93,000 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 2014. 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 is 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 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. 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, and as part of the June 2014 warrant exchange transaction discussed below, the Company agreed that until September 14, 2014 it would not issue additional shares in capital raising transactions other than in private placements to its officers and directors. During the six months ended June 30, 2014, to obtain funding for working capital purposes, the Company sold a total of 8,200,000 shares of common stock under the stock Purchase Agreement with Lincoln Park, raising approximately $1,588,000. For further discussion, see Note 6, Capital Stock.

During the second quarter of 2014, the Company sold an additional 8,833,333 shares of common stock to 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, for an aggregate of $1,050,000, as discussed in Note 6, Capital Stock.

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 was in the development stage from inception through 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 generated from its two commercial businesses. The Company generated product revenues from the two commercial businesses of $6,147,000 for the year ended December 31, 2013. The Company currently has no revenue generated from its principal operations in therapeutic and clinical product development.

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 in 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, 2013. When used in these notes, the terms "Company," "we," "us," or "our" mean International Stem Cell Corporation and all entities included in the unaudited condensed consolidated financial statements.

In the opinion of management, 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, 2013 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.

Reclassification

Certain amounts within the unaudited condensed consolidated statements of operations for the prior period have been reclassified to conform to the current period presentation. These reclassifications had no impact on the Company's previously reported results of operations.

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

Inventories are accounted for using the first-in, first-out (FIFO) method for LSC products, and specific identification method for LCT products. Inventory balances are stated at the lower of cost or market. Laboratory 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 June 30, 2014 and December 31, 2013, the Company had an allowance for bad debt totaling $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 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 did not recognize material impairments on its long-lived assets during the three and six months ended June 30, 2014 and 2013.

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% and 50% of total revenue during the six months ended June 30, 2014 and 2013, respectively. LSC contributed 48% and 50% of total revenue during the six months ended June 30, 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 three and six months ended June 30, 2014 as compared to the years ended December 31, 2013 and 2012. At June 30, 2014 and December 31, 2013, the estimated allowance for sales returns was $10,000. At June 30, 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.

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 June 30, 2014 (in thousands):

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

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	—
Exercise of warrants	—
Adjustments to estimated fair value	(1,894)
Warrants exchanged for common stock	(3,031)
Ending balance at June 30, 2014	$ —

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 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 June 30, 2014 and December 31, 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 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 June 30, 2014, there were 472,500 non-vested restricted stock awards, 20,236,077 vested and 7,082,333 non-vested stock options outstanding, and 7,762,500 warrants outstanding, which were convertible into 7,762,500 shares of common stock; and at June 30, 2013, there were 660,000 non-vested restricted stock awards, 16,916,733 vested and 6,846,560 non-vested stock options outstanding, and 9,462,500 warrants outstanding, which were convertible into 9,462,500 shares of common stock. 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 three and six months ended June 30, 2014 and 2013.

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 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 it ongoing financial reporting.

In July 2013, the FASB issued an accounting standards update that provides explicit guidance on the financial statement presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The guidance is effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2013. The Company has adopted this guidance at the beginning of the first quarter of fiscal year 2014. The adoption of this standard does not have a material impact on the Company's financial position, results of operations or related financial statement disclosures.

2. Inventory

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

	June 30, 2014	December 31, 2013
Raw materials	$ 242	$ 147
Work in process	497	446
Finished goods	867	902
Total	1,606	1,495
Less: allowance for inventory obsolescence	(136)	(126)
Inventory, net	$ 1,470	$ 1,369

3. Property and Equipment

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

	June 30, 2014	December 31, 2013
Machinery and equipment	1,347	$ 1,170
Computer equipment	250	246
Office equipment	203	203
Leasehold improvements	757	745
Construction in progress	25	—
	2,582	2,364
Less: accumulated depreciation and amortization	(1,735)	(1,534)
Property and equipment, net	$ 847	$ 830

Depreciation expenses for the three and six months ended June 30, 2014 were $101,000 and $202,000, respectively. During the same periods in the prior year, depreciation expenses were $100,000 and $201,000, respectively.

4. Patent Licenses

On December 31, 2003, LCT entered into an *Option to License Intellectual Property* agreement with Advanced Cell Technology, Inc. ("ACT") 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. As of June 30, 2014, the total amount capitalized related to the acquired ACT licenses was $747,000, and $2,273,000 related to the other patent acquisition costs.

Patents and patent licenses were recorded at cost of $3,020,000 and $2,760,000 at June 30, 2014 and December 31, 2013, respectively. Amortization expense for the three months ended June 30, 2014 and 2013 was $16,000 and $15,000, respectively; and amortization expense for the six months ended June 30, 2014 and 2013 was $32,000 and $30,000, respectively. All amortization expense related to intangible assets is included in general and administrative expense. Accumulated amortization as of June 30, 2014 and December 31, 2013 was $542,000 and $510,000, respectively.

At June 30, 2014, future amortization expense related to intangible assets subject to amortization is expected to be as follows (in thousands):

	Amount
2014 (remaining six months)	$ 31
2015	62
2016	62
2017	62
2018	62
Thereafter	2,200
Total	$ 2,479

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 June 30, 2014 no revenues were realized from this agreement.

	June 30, 2014	December 31, 2013
BioTime, Inc. (in thousands)	$ 250	$ 250

6. Capital Stock

As of June 30, 2014, the Company is authorized to issue 600,000,000 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. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price of the Series B Preferred to $0.20. As a result of the 2013 S-1 July Registered Offering discussed below, the conversion price for the Series B Preferred was reduced to $0.15 and $0.1452 in the third and fourth quarters of 2013, respectively. During the second quarter of 2014, the 2014 Warrant Exchange Agreements discussed below triggered an adjustment in the current conversion price of the Series B Preferred to $0.0667 per share. The Series B Preferred 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 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 June 30, 2014 and December 31, 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 June 30, 2014 and December 31, 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 June 30, 2014 and December 31, 2013, there were 43 shares of the Series D Preferred issued and outstanding.

On December 4, 2012, the holders of all of the outstanding shares of Series D Preferred executed a Waiver of Anti-Dilution Rights (the "Anti-Dilution Waiver") pursuant to which such holders waived all anti-dilution adjustment rights under the Certificate of Designation for the Series D Preferred in connection with the offering of securities pursuant to the registration statement originally filed with the SEC on October 18, 2012, including the shares issuable on exercise of all warrants registered thereunder. The Anti-Dilution Waiver applied to the financing transaction that closed on July 24, 2013. The Anti-Dilution Waiver does not apply to any future issuances of securities which would otherwise trigger anti-dilution adjustments under the Certificate of Designation for the Series D Preferred. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price of the Series D Preferred to $0.20. During December 2013, the Company issued additional shares of common stock at $0.15 per share, triggering an adjustment in the conversion price of the Series D Preferred to $0.15 per share. During the second quarter of 2014, the 2014 Warrant Exchange Agreements discussed below triggered an adjustment in the current conversion price of the Series D Preferred to $0.0667 per share.

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 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 have 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 is not solely within the Company's control, the convertible preferred stock has been 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.

As of June 30, 2014 and December 31, 2013, there were 5,000,000 shares of the Series G Preferred issued and outstanding.

During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price and the conversion ratio of the Series G Preferred to $0.37 per share and 2.67 shares, respectively. As a result of the 2013 S-1 July Registered Offering during the third quarter of 2013, the conversion price and the conversion ratio for the Series G Preferred were adjusted to $0.30 per share and 3.28 shares, respectively. During December 2013, the Company issued additional shares of common stock at $0.15 per share, triggering an adjustment in the conversion price and the conversion ratio for the Series G Preferred to $0.3039 per share and 3.291 shares, respectively.

During the first quarter of 2014, the Company issued additional shares of common stock, under the stock Purchase Agreement with Lincoln Park, at various prices ranging from $0.175 to $0.223 per share, triggering numerous adjustments in the conversion price and the conversion ratio of the Series G Preferred. During the second quarter of 2014, the Company issued additional shares of common stock, under the stock Purchase Agreement with Lincoln Park, at various prices ranging from $0.150 to $0.185 per share; and sold shares at $0.15 and $0.10 per share to Dr. Andrey Semechkin and Dr. Ruslan Semechkin, the Company's Co-Chairman and Chief Executive Officer, and Chief Scientific Officer and a director, respectively, triggering numerous adjustments in the conversion price and the conversion ratio of the Series G Preferred. Also during the second quarter of 2014, common shares were issued at $0.0667 per share as part of the 2014 Warrant Exchange Agreements discussed below. As of June 30, 2014, the adjusted conversion price and the conversion ratio for the Series G Preferred were $0.2545 per share and 3.9289 shares, respectively.

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 June 30, 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, which the Company had reserved 37,888,154 shares of common stock for future issuance.

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.

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.

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.

2013 Lincoln Park Capital Fund, LLC Stock Purchase Agreement

On December 10, 2013, the Company entered into a stock purchase agreement (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 three and six months ended June 30, 2014, the Company sold 3,000,000 and 8,200,000 shares, respectively, to Lincoln Park raising approximately $484,000 and $1,588,000, respectively, for working capital purposes. From commencement through to June 30, 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 June 30, 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.

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 three months and six months ended June 30, 2013, the Company issued 0 and 1,200,000 shares of common stock, respectively, to Aspire Capital, raising $0 and $264,000, respectively, which was used to fund its research and operational activities.

Reserved Shares

At June 30, 2014, the Company had shares of common stock reserved for future issuance as follows:

Options outstanding	27,318,410
Options available for future grant	8,396,333
Convertible preferred stock	88,634,236
Warrants	7,762,500
	132,111,479

7. Related Party Transactions

Other than with respect to the purchases of Series C Preferred, Series D Preferred, Series G 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 three months ended June 30, 2014 and 2013, the Company recorded $41,000 and $45,000, respectively, in rent expense that was related to the facility lease arrangement with related parties. Additionally, during the six months ended June 30, 2014 and 2013, the Company recorded $81,000 and $79,000, respectively, related to the same arrangement with the related party.

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 15,000,000 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 18,000,000 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 10,257,593 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 six months ended June 30, 2014 and 2013 was comprised of the following (in thousands):

	Three Months Ended June 30, 2014	Three Months Ended June 30, 2013	Six Months Ended June 30, 2014	Six Months Ended June 30, 2013
Cost of sales	$ 15	$ —	$ 30	$ —
Research and development	73	93	143	177
Selling and marketing	12	10	23	19
General and administrative	274	337	525	653
	$ 374	$ 440	$ 721	$ 849

Unrecognized compensation expense related to stock options as of June 30, 2014 was $1,562,000, which is expected to be recognized over a weighted average period of approximately 1.78 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 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 six months ended June 30, 2014 and 2013:

	Three Months Ended June 30, 2014	Three Months Ended June 30, 2013	Six Months Ended June 30, 2014	Six Months Ended June 30, 2013
Significant assumptions (weighted average):				
Risk-free interest rate at grant date	1.91%	0.95%	1.91%	0.95%
Expected stock price volatility	99.72%	118.34%	99.72%	118.34%
Expected dividend payout	0%	0%	0%	0%
Expected option life based on management's estimate	6.1 yrs	6.1 yrs	6.1 yrs	6.1 yrs

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 Shares 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	4,104,000	$ 0.16		
Exercised	—	$ —		
Canceled or expired	(423,283)	$ 0.72		
Outstanding at June 30, 2014	19,709,117	$ 0.93	6.72 years	$ —
Vested and expected to vest at June 30, 2014	18,704,421	$ 0.97	6.57 years	$ —
Exercisable at June 30, 2014	12,626,784	$ 1.20	5.48 years	$ —

	Number of Shares 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 June 30, 2014	7,609,293	$ 0.62	5.36 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, 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	716,500	$ 0.21
Vested	(388,750)	$ 0.23
Forfeited	—	$ —
Unvested at June 30, 2014	472,750	$ 0.20

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 six months ended June 30, 2014 and 2013 was approximately $91,000 and $188,000, respectively. The Company recognized approximately $46,000 and $69,000 of stock-based compensation expense related to the restricted stock awards for the three months ended June 30, 2014 and 2013, respectively. Additionally, during the six months ended June 30, 2014 and 2013, the Company recognized approximately $85,000 and $137,000 of stock-based compensation expense related to the restricted stock awards, respectively. As of June 30, 2014, total unrecognized compensation costs related to unvested awards was approximately $84,000, which is expected to be recognized over a weighted-average period of approximately 0.57 years.

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, 2013, 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 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 three and six months ended June 30, 2014, the Company recorded a net change in fair value of warrant liability gain of $1,271,000 and $1,894,000, respectively, in the unaudited condensed 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 three and six months ended June 30, 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, 3013. 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 60th 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 10th through to the expiration date of October 24th. 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 June 30, 2014 and December 31, 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 June 30, 2014 and December 31, 2013, there were 200,000 warrants outstanding. These warrants expire in September 2016.

Share data related to warrant transactions through June 30, 2014 were as follows:

	Preferred Stock		Common Stock		Units	Common Stock					Price per Warrant	
	Series A	Series B	Series A	Series B	Placement Agent	YKA Loan	Skin Care Marketing	Jan 2013 Financing	Mar 2013 Financing	Total Warrants	Range	Weighted Average Exercise Price
Outstanding, December 31, 2012	1,600,000	300,000	—	—	—	1,400,000	200,000	—	—	3,500,000	$ 0.25-2.00	$ 0.336
2013												
Issued			36,754,822	20,000,000	666,666			5,062,500	2,500,000	64,983,988	$0.15-0.200	$ 0.156
Exercised			(200,000)	(16,754,822)						(16,954,822)	$0.145-0.15	$ 0.147
Forfeited/Cancelled	(1,600,000)	(300,000)		(3,245,178)		(1,400,000)				(6,545,178)	$0.15-0.250	$ 0.198
Outstanding, December 31, 2013	—	—	36,554,822	—	666,666	—	200,000	5,062,500	2,500,000	44,983,988	$0.145-2.00	$ 0.166
2014												
Issued										—		
Exchanged			(36,554,822)		(666,666)					(37,221,488)	$ 0.15	$ 0.150
Exercised										—		
Forfeited/Cancelled										—		
Outstanding, June 30, 2014	—	—	—	—	—	—	200,000	5,062,500	2,500,000	7,762,500	$0.145-2.00	$ 0.240

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 $8,588 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 $11,032. 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 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 $79,000 and $84,000 for the three months ended June 30, 2014 and 2013, respectively. For the six months ended June 30, 2014 and 2013, the Company incurred rent expense of $158,000.

Future minimum lease payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of June 30, 2014, are as follows (in thousands):

	Amount
2014 (remaining six months)	$ 194
2015	397
2016	101
2017	3
Total	$ 695

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 $10,000 and $19,000 as commission expenses during the three months ended June 30, 2014 and 2013, respectively, under the terms of this agreement. For the six months ended June 30, 2014 and 2013, the commission expense incurred under this agreement was $23,000 and 43,000, respectively.

Customer Concentration

During the three and six months ended June 30, 2014 for the Biomedical market segment, one customer accounted for 19% and 20% of consolidated revenues. During the three and six months ended June 30, 2013 for the Biomedical market segment, one customer accounted for 14% and 15% of our 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.

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 June 30,		For the Six Months Ended June 30,	
	2014	2013	2014	2013
Revenues:				
Cosmeceutical market	$ 746	$ 709	$ 1,549	$ 1,359
Biomedical market	842	748	1,688	1,383
Total revenues	1,588	1,457	3,237	2,742
Operating expenses:				
Therapeutic market	2,388	2,329	4,608	4,171
Cosmeceutical market	785	738	1,573	1,341
Biomedical market	658	580	1,364	1,134
Total operating expenses	3,831	3,647	7,545	6,646
Operating income (loss):				
Therapeutic market	(2,388)	(2,329)	(4,608)	(4,171)
Cosmeceutical market	(39)	(29)	(24)	18
Biomedical market	184	168	324	249
Total operating income (loss)	$(2,243)	$(2,190)	$(4,308)	$(3,904)

Geographic Information

The Company's wholly-owned subsidiaries are located in Maryland and California, 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 June 30,		For the Six Months Ended June 30,	
	2014	2013	2014	2013
North America	$ 1,318	$ 1,064	$ 2,667	$ 2,082
Asia	162	294	340	421
Europe	101	77	210	188
All other regions	7	22	20	51

Total	$ 1,588	$ 1,457	$ 3,237	$ 2,742

12. Subsequent Event

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. 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.

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, 2013 and 2012, 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, 2013 and 2012, 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 17, 2014

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

	December 31, 2013	December 31, 2012
Assets		
Cash and cash equivalents	$ 2,243	$ 654
Accounts receivable, net of allowance for doubtful accounts of $19 and $4 at December 31, 2013 and 2012, respectively	306	273
Inventory, net	1,369	1,199
Prepaid expenses and other current assets	658	456
Restricted cash	50	—
Total current assets	4,626	2,582
Property and equipment, net	830	1,134
Intangible assets, net	2,250	1,634
Deposits and other assets	33	20
Total assets	$ 7,739	$ 5,370
Liabilities, Redeemable Preferred Stock and Stockholders' Equity (Deficit)		
Accounts payable	$ 532	$ 969
Accrued liabilities	1,290	730
Deferred revenue	3	233
Related party payable	21	5
Advances	250	250
Fair value of warrant liability	4,925	—
Total current liabilities	7,021	2,187
Convertible Redeemable Series G Preferred stock, $0.001 par value, 5,000,000 shares authorized, issued and outstanding at December 31, 2013 and 2012, with liquidation preference of $5,000 at December 31, 2013 and 2012	4,941	4,941
Commitments and contingencies		
Stockholders' Equity (Deficit)		
Series D Preferred stock, $0.001 par value, 50 shares authorized, 43 issued and outstanding at December 31, 2013 and 2012, with liquidation preference of $4,320 at December 31, 2013 and 2012	—	—
Series B Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding at December 31, 2013 and 2012, liquidation preferences of $403 and $385 at December 31, 2013 and 2012, respectively	—	—
Series C Preferred stock, $0.001 par value, 0 and 3,000,000 shares authorized, 0 and 2,000,000 issued and outstanding at December 31, 2013 and 2012, respectively, with liquidation preferences of $0 and $2,507 at December 31, 2013 and 2012,		

respectively	—	2
Common stock, $0.001 par value, 300,000,000 shares authorized, 151,175,053 and 87,388,815 issued and outstanding at December 31, 2013 and 2012, respectively	151	87
Additional paid-in capital	77,897	69,945
Accumulated deficit	(82,271)	(71,792)
Total stockholders' deficit	(4,223)	(1,758)
Total liabilities, redeemable preferred stock and stockholders' equity (deficit)	$ 7,739	$ 5,370

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31, 2013	2012
Revenues		
Product sales	$ 6,147	$ 4,567
Total revenue	6,147	4,567
Expenses		
Cost of sales	1,643	1,272
Research and development	3,560	3,599
Selling and marketing	2,457	2,065
General and administrative	6,033	7,446
Total expenses	13,693	14,382
Loss from operating activities	(7,546)	(9,815)
Other income (expense)		
Fair value of warrant liability in excess of proceeds	(1,390)	—
Financing transaction costs	(738)	—
Change in fair value of warrant liability	(754)	38
Miscellaneous expense	(74)	(61)
Interest expense	(3)	(2)
Sublease income	26	7
Total other (expense), net	(2,933)	(18)
Loss before income taxes	(10,479)	(9,833)
Provision for income taxes	—	—
Net loss	$ (10,479)	$ (9,833)
Deemed dividend on preferred stock	$ —	$ (1,375)
Dividends on preferred stock	$ —	$ (129)
Net loss attributable to common stockholders	$ (10,479)	$ (11,337)
Net loss per common share-basic and diluted		

	$ (0.09)	$ (0.13)
Weighted average shares-basic and diluted	123,088	85,936

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, 2013 and 2012
(in thousands)

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock								Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
					Series A		Series B		Series C		Series D				
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2011	—	$ —	80,036	$ 80	500	$ 1	300	$ —	2,000	$ 2	—	$ —	$ 63,995	$ (60,455)	$ 3,623
Issuance of convertible redeemable Series G preferred stock, net of issuance costs of $59	5,000	4,941													
Beneficial conversion feature for Series G preferred stock		(1,375)											1,375		1,375
Issuance of common stock															
From conversion of Series A preferred stock			2,000	2	(500)	(1)							(1)		—
For cash			5,000	5									2,079		2,084
For services			335	—									59		59
From exercise of options			18	—									4		4
Stock-based compensation													2,361		2,361
Warrants issued for services													73		73
Accrued dividend on preferred stock		93												(222)	(222)
Reversal of dividend accreted		(93)												93	93
Deemed dividend on preferred stock		1,375												(1,375)	(1,375)
Net loss for the year ended December 31, 2012														(9,833)	(9,833)
Balance at December 31, 2012	5,000	4,941	87,389	87	—	—	300	—	2,000	2	—	—	69,945	(71,792)	(1,758)
Issuance of common stock from conversion of Series C preferred															

stock			8,000	8				(2,000)	(2)			(6)			—
Issuance of common stock															
For cash, net of issuance costs of $178			37,991	38								3,343			3,381
For services			840	1								239			240
From exercises of warrants, net of commissions of $98			16,955	17								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	5,000	$ 4,941	151,175	$ 151	—	$ —	300	$ —	—	$ —	—	$ —	$ 77,897	$ (82,271)	$ (4,223)

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31,	
	2013	2012
Cash flows from operating activities		
Net loss	$ (10,479)	$ (9,833)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	464	474
Warrants issued for services	—	73
Stock-based compensation expense	1,693	2,361
Common stock issued for services	240	59
Fair value of warrant liability in excess of proceeds	1,390	—
Financing transaction costs	738	—
Change in fair value of warrant liability	754	(38)
Allowance for doubtful accounts	23	—
Allowance for inventory obsolescence	90	(40)
Allowance for sales returns	10	—
Loss on disposal of fixed assets	68	56
Impairment of intangible assets	52	190
Changes in operating assets and liabilities:		
(Increase) decrease in accounts receivable	(55)	(133)
(Increase) decrease in inventory	(260)	109
(Increase) decrease in prepaid assets and other assets	(202)	(182)
(Increase) decrease in restricted cash	(50)	—
(Increase) decrease in deposits	(13)	(4)
Increase (decrease) in accounts payable	(437)	192
Increase (decrease) in accrued expenses	550	(22)
Increase (decrease) in deferred revenue	(230)	44
Increase (decrease) in related party payable	16	5
Net cash used in operating activities	(5,638)	(6,689)
Investing activities		

Purchases of property and equipment	(167)	(197)
Proceeds from sale of fixed assets	—	7
Payments for patent licenses and trademarks	(729)	(596)
Net cash used in investing activities	(896)	(786)
Financing activities		
Proceeds from issuance of common stock	6,538	2,084
Proceeds from issuance of preferred stock	—	4,941
Proceeds from exercise of warrants and options	2,386	4
Payment of preferred stock dividends	—	(237)
Payment of stock issuance costs	(801)	—
Net cash provided by financing activities	8,123	6,792
Net increase (decrease) in cash and cash equivalents	1,589	(683)
Cash and cash equivalents, beginning of period	654	1,337
Cash and cash equivalents, end of period	$ 2,243	$ 654

	Year Ended December 31,	
	2013	2012
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 3	$ 2
Non-cash financing activities:		
Accretion of preferred stock dividends	$ —	$ 93
Deemed dividend on preferred stock	$ —	$ 1,375
Reversal of preferred dividends accreted	$ —	$ (93)
Warrants issued for placement agent services	$ 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 $470,000 per month, excluding capital expenditures and patent costs averaging $75,000 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 2014. 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 the first quarter of 2013, to obtain funding for working capital purposes, the Company sold a total of 16,325,000 shares of common stock raising net proceeds of approximately $3,266,000. In July 2013, the Company closed a financing transaction contemplated by an S-1 Registration Statement (the "S-1 July Registered Offering") on file with the U.S. Securities and Exchange Commission (the "SEC"). The Company issued 20,000,000 Units in this transaction, raising net proceeds of approximately $2,377,000. Each Unit issued consists of a share of common stock and a Series A Warrant. Each purchaser also received a Series B Warrant for each Unit purchased. During the third quarter of 2013, the Company received net proceeds of $242,000 upon the exercise of 1,700,000 Series B Warrants for 1,700,000 additional Units. During the fourth quarter of 2013, the Company received additional net proceeds of $2,144,000 upon the exercise of 15,054,822 Series B Warrants for 15,054,822 additional Units, but prior to the expiration of the Series B Warrants on October 24, 2013, and upon exercise of 200,000 Series A Warrants for common stock. For further discussion regarding these transactions, see Note 6, Capital Stock.

In December 2013, the Company filed a registration statement with the SEC that, following effectiveness, would allow us 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. 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. From January 15, 2014 through March 10, 2014, to obtain funding for working capital purposes, the Company sold a total of 3,800,000 shares of common stock raising approximately $817,000. For further discussion, see Note 12, Subsequent Events.

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 consistently, increasing revenue trend and more significant revenue totals generated from its two commercial businesses. The Company has generated product revenues from the two commercial businesses of $6,147,000 and $4,567,000 for the years ended December 31, 2013 and 2012, 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.

Reclassification

Certain amounts within the Consolidated Statements of Operations for the prior period have been reclassified to conform to the current period presentation. These reclassifications had no impact on the Company's previously reported results of operations.

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

Inventories are accounted for using the first-in, first-out (FIFO) method for LSC products, and specific identification method for LCT products. Inventory balances are stated at the lower of cost or market. Laboratory 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, 2013 and 2012, the Company had an allowance for doubtful accounts of $19,000 and $4,000, 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 patent licenses are recorded at cost of $2,760,000 and $2,083,000 at December 31, 2013 and 2012, 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, 2013 and 2012 amounted to $61,000 and $54,000, respectively, and is included in research and development expense. Accumulated amortization as of December 31, 2013 and 2012 was $510,000 and $449,000, 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 $52,000 and $190,000 of impairment losses on its long-lived assets during the years ended December 31, 2013 and 2012, 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 48% and 52% of total revenue in 2013 and 2012, respectively. LSC's revenue accounted for 52% and 48% of total revenue in 2013 and 2012, 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 to be approximately 3% for the years ended December 31, 2013 and 2012. As such at December 31, 2013, the Company recorded an estimated allowance for sales returns of $10,000, and a one-time recognition of prior deferred revenue of $277,000, offset by prior deferred cost of sales of $21,000 for net deferred revenue recognition of $256,000.

During 2012, the Company deferred all revenue associated with website sales until the 30-day product return guarantee had lapsed due to insufficient historical data of sales returns to accurately estimate an allowance for sales returns. In addition, all costs associated with these product sales were also deferred so that a net deferred revenue balance was reflected. At December 31, 2012, net deferred revenue totaled $233,000.

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.

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, 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 table below sets forth a summary of the fair values of the Company's assets and liabilities as of December 31, 2012 (in thousands):

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$ 5	$ 5	$ —	$ —

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
Ending balance at December 31, 2011	$ 38
Issuances of warrants	—
Adjustments to estimated fair value due to expiry	(38)
Ending 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

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 carrying values, 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 December 31, 2013 and 2012 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 2013 and 2012 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, 2013, there were 145,000 non-vested restricted stock awards, 18,958,403 vested and 4,679,290 non-vested stock options outstanding, and 44,983,988 warrants outstanding, which were convertible into 45,650,654 shares of common stock; and at December 31, 2012, there were 335,000 non-vested restricted stock awards, 3,500,000 warrants, and 15,407,902 vested and 7,969,230 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, 2013 and 2012.

Recent Accounting Pronouncements

In July 2013, the FASB issued an accounting standards update that provides explicit guidance on the financial statement presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The guidance is effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2013, with an option of early adoption. The Company intends to adopt this guidance at the beginning of the first quarter of fiscal year 2014, and do not believe the adoption of this standard will have a material impact on its financial position, results of operations or related financial statement disclosures.

2. Inventory

Inventories are accounted for using the first-in, first-out (FIFO) method for LSC products, and specific identification method for LCT products. Lab supplies used in the research and development process are expensed as consumed. Inventory is reviewed periodically for product expiration and obsolete inventory and adjusted accordingly. The components of inventories are as follows (in thousands):

	December 31, 2013	December 31, 2012
Raw materials	$ 147	$ 276
Work in process	446	211
Finished goods	902	748
Total	1,495	1,235
Less: allowance for inventory obsolescence	(126)	(36)
Inventory, net	$ 1,369	$ 1,199

3. Property and Equipment

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

	December 31, 2013	December 31, 2012
Machinery and equipment	$ 1,170	$ 1,072
Computer equipment	246	347
Office equipment	203	225
Leasehold improvements	745	830
	2,364	2,474
Less: accumulated depreciation and amortization	(1,534)	(1,340)
Property and equipment, net	$ 830	$ 1,134

Depreciation expense for the years ended December 31, 2013 and 2012 were $403,000 and $420,000, respectively.

4. Patent Licenses

On December 31, 2003, LCT entered into an *Option to License Intellectual Property* agreement with Advanced Cell Technology, Inc. ("ACT") 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 and $150,000, for the years ended December 31, 2013 and 2012, respectively.

As of December 31, 2013, the total amounts capitalized related to the acquired ACT licenses were $747,000, and $1,970,000 related to other patent acquisition costs.

At December 31, 2013, future amortization expense related to the intangible assets subject to amortization is expected to be as follows (in thousands):

	Amount
2014	$ 62
2015	62
2016	62
2017	62
2018	62
Thereafter	1,897
Total	$ 2,207

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, 2013, no revenues were realized from this agreement.

	December 31, 2013	December 31, 2012
BioTime, Inc. (in thousands)	$ 250	$ 250

6. Capital Stock

As of December 31, 2013, the Company is authorized to issue 300,000,000 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 A Preferred Stock

On January 15, 2008, to raise funds, the Company entered into a subscription agreement with accredited investors for the sale of between 1,000,000 and 5,000,000 Units of Series A Preferred Stock ("Series A Preferred"). Series A Units consist of one share of Series A Preferred and two Warrants ("Series A Warrants") to purchase common stock for each $1.00 invested. The Series A Preferred was convertible into shares of common stock at market price on the date of the first finance closing, but not to exceed $1 per share and the Series A Warrants are exercisable at $0.50 per share.

During the second quarter of 2010, the holders of the warrants issued to the purchasers of Series A Preferred 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.

On March 30, 2012, the holder of the remaining 500,000 shares of Series A Preferred converted his shares to a total of 2,000,000 shares of common stock. As of December 31, 2012, there were no shares of the Series A Preferred issued and outstanding. In May 2012, the Company filed a Certificate of Elimination for the Series A Preferred stock to remove the powers, designations, preferences, privileges and other rights of the Series A Preferred stock.

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. The Series B Preferred and Series B Warrants contained anti-dilution clauses whereby, (subject to the exceptions contained in those instruments) if the Company issues equity securities or securities convertible into equity at a price below the respective conversion price of the Series B Preferred or the exercise price of the Series B Warrant, such conversion and exercise prices shall be adjusted downward to equal the price of the new securities. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price of the Series B Preferred to $0.20. As a result of the 2013 S-1 July Registered Offering discussed below, the conversion price for the Series B Preferred was reduced to $0.15 and $0.1452 in the third and fourth quarters of 2013, respectively. The Series B Preferred 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 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, 2013 and 2012, there were 300,000 shares of the Series B Preferred issued and outstanding.

During the second quarter of 2010, the holders of the warrants issued to the purchasers of Series B Preferred 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.

Series C Preferred Stock

On August 20, 2008, to obtain funding for working capital, the Company entered into a subscription agreement with an accredited investor (the "Series C Investor") to sell for $3,000,000 up to 3,000,000 shares of Series C Preferred Stock ("Series C Preferred") 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. The Series C Preferred had priority over the common stock on any sale or liquidation of the Company equal to the purchase price of the Series C Preferred shares, plus a liquidation premium of 6% per year, but such payment would be made only after payment in full of the liquidation preferences payable to holders of any shares of Series A Preferred and Series B Preferred stock then outstanding. If the Company elects to declare a dividend in any year, it must first pay to the Series C Preferred a dividend in the amount of the dividend the Series C Preferred holder would receive if converted just prior to the dividend declaration. Each share of Series C Preferred had the same voting rights as the number of shares of common stock into which it would be convertible on the record date.

On August 20, 2008, 700,000 shares of Series C Preferred were sold and 1,300,000 shares of Series C Preferred were sold on September 23, 2008. 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 of International Stem Cell and a director.

As of December 31, 2013 and 2012, there were 0 and 2,000,000 shares of the Series C Preferred issued and outstanding, respectively. 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") to sell for up to $5,000,000 or up to 50 shares of Series D Preferred Stock ("Series D Preferred") at a price of $100,000 per Series D Preferred share. The Company sold 43 shares for total proceeds of $4,700,000 in the Series D Preferred round.

Of the Series D Preferred issued, 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, 2013 and 2012, there were 43 shares of the Series D Preferred issued and outstanding.

Historically, the Series D Preferred 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 Preferred and Series G Preferred 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 Preferred and Series G Preferred. Under the Waiver Agreement, the holders of Series D Preferred and Series G Preferred are restricted from transferring any shares of Series D Preferred unless the transferee agrees to be bound by the Waiver Agreement.

On December 4, 2012, the holders of all of the outstanding shares of Series D Preferred executed a Waiver of Anti-Dilution Rights (the "Anti-Dilution Waiver") pursuant to which such holders waived all anti-dilution adjustment rights under the Certificate of Designation for the Series D Preferred in connection with the offering of securities pursuant to the registration statement originally filed with the SEC on October 18, 2012, including the shares issuable on exercise of all warrants registered thereunder. The Anti-Dilution Waiver applied to the financing transaction that closed on July 24, 2013. The Anti-Dilution Waiver does not apply to any future issuances of securities which would otherwise trigger anti-dilution adjustments under the Certificate of Designation for the Series D Preferred. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price of the Series D Preferred to $0.20. During December 2013, the Company issued additional shares of common stock at $0.15 per share, triggering an adjustment in the current conversion price of the Series D Preferred to $0.15 per share.

During the years ended December 31, 2013 and 2012, dividends of $0 and $237,000, respectively, were paid to the holders. As of December 31, 2013 and 2012, no Series D Preferred dividends were accrued.

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 is 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 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. Historically, from the date of issuance of the Series G Preferred, 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. 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.

On October 12, 2012, the Company and the holders of all of the outstanding shares of Series D Preferred and Series G Preferred entered into 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 Preferred and Series G Preferred. Accordingly, dividends from inception in the amount of $93,000 accreted to the carrying value of Series G Preferred have been reversed. Under the Waiver Agreement, the holders of Series D Preferred and Series G Preferred stock are restricted from transferring any shares of Series D Preferred or Series G Preferred unless the transferee agrees to be bound by the Waiver Agreement. As of December 31, 2013 and 2012, there were no dividends accrued on Series G Preferred. No dividends were paid to the holders during the years ended December 31, 2013 and 2012. As of December 31, 2013 and 2012, there were 5,000,000 shares of the Series G Preferred issued and outstanding.

The Company determined that the Series G Preferred have 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 is not solely within the Company's control, the convertible preferred stock has been 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.

The Company determined, as the initial conversion price at the date of close of the Series G Preferred transaction was lower than the closing market price on March 9, 2012, that a beneficial conversion feature existed in the amount of $1,375,000. Such amount was recorded as a discount on the Series G Preferred stock with a corresponding increase in additional paid-in capital. Based on the appropriate accounting guidance, the Company is required to recognize the discount over the period of time from the issuance of preferred shares until the convertible preferred shares can be first converted. As the Series G Preferred are convertible immediately following their issuance, the discount amount of $1,375,000 was recognized in March 2012 as deemed dividend with a corresponding increase in accumulated deficit. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price of the Series G Preferred to $0.37 per share, and the conversion ratio to 2.67 shares of common stock for every share of Series G Preferred. As a result of the 2013 S-1 July Registered Offering during the third quarter of 2013, the conversion price and the conversion ratio for the Series G Preferred were adjusted to $0.30 per share and 3.28 shares, respectively. During December 2013, the Company issued additional shares of common stock at $0.15 per share, triggering an adjustment in the current conversion price and the conversion ratio for the Series G Preferred to $0.3039 per share and 3.291 shares, respectively.

Common Stock Transactions

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.

In connection with the execution of the Purchase Agreement, the Company sold Aspire 333,333 shares of common stock for a total of $500,000. Under the Purchase Agreement, the Company also agreed to pay Aspire Capital a commitment fee of 500,000 shares of its common stock. The Company was not obligated to pay any additional expense reimbursement or any placement agent fees in connection with the transaction. 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 years ended December 31, 2013 and 2012, the Company issued 1,200,000 and 5,000,000 shares of common stock, respectively, to Aspire Capital, raising $264,000 and $2,084,000, respectively, which was used to fund its research and operational activities.

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 (the "January 2013 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 (the "March 2013 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.

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 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 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 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, 2013, total Series A and Placement Agent warrants outstanding were 36,554,822 and 666,666, respectively, which the Company has reserved 37,888,154 shares of common stock for future issuance.

The Company accounts 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 is 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 on July 24, 2013, at the various warrant exercise dates, on October 24, 2013, the expiration date of the Series B Warrants, and at December 31, 2013 using the Monte-Carlo simulation model. The fair value is affected by changes in inputs to the 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 liability 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, 2013, the Company recorded a net change in fair value of warrant liability expense of $754,000, in the Consolidated Statements of Operations related to the change in fair value due to the revaluation at December 31, 2013, the change in fair value of the Series A and B Warrants at each exercise date, and for the 3,245,178 Series B Warrants, which expired unexercised on October 24, 2013. As a result of the fair value of the warrant liability at issuance exceeding the total gross proceeds received, the transaction financing costs of $738,000 were recognized as additional other expense. As a result of these three line items on the Consolidated Statements of Operations, the Company recognized a net effect to other expense of $2,882,000 related to the 2013 S-1 July Registered Offering for the year ended December 31, 2013.

2013 Lincoln Park Capital Fund, LLC Stock Purchase Agreement

On December 10, 2013, the Company entered into a stock 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. The Company does not have the right to commence any sales to Lincoln Park under the Purchase Agreement until the SEC has declared effective the registration statement.

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.

Subsequent to December 31, 2013, the S-1 Registration Statement filed with the Securities and Exchange Commission in December 2013 and amended in January 2014 went effective on January 13, 2014. Subsequent to December 31, 2013, from January 15, 2014 through March 10, 2014, the Company sold an additional 3,800,000 shares to Lincoln Park for an aggregate of approximately $817,000. See Note 12, Subsequent Events for further details.

Other than the Initial Purchase, the Company does not have the right to commence any additional sales of common stock to Lincoln Park under the Purchase Agreement until the SEC has declared effective the registration statement. See Note 12, Subsequent Events for details of the transaction subsequent to December 31, 2013. Thereafter, 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.

Reserved Shares

At December 31, 2013, the Company had shares of common stock reserved for future issuance as follows:

Options outstanding	23,637,693
Options available for future grant	12,793,550
Convertible preferred stock	47,187,929
Warrants	45,650,654
	129,269,826

7. Related Party Transactions

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

On October 12, 2012, the Company and the holders of all of the outstanding shares of Series D Preferred and Series G Preferred entered into 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 Preferred and Series G Preferred. Accordingly, the Company reversed all previously accreted and recorded dividends related to Series G Preferred totaling $93,000. Under the Waiver Agreement, the holders of Series D Preferred and Series G Preferred are restricted from transferring any shares of Series D Preferred and Series G Preferred unless the transferee agrees to be bound by the Waiver Agreement. Therefore, dividend amounts related to Series D Preferred and Series G Preferred, were $0 at December 31, 2013 and 2012 and would have been payable to X-Master, Inc. and AR Partners LLC, entities 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. The Series D Preferred dividends were payable to both X-Master, Inc. and the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin, while Series G Preferred dividends were initially cumulative and payable upon conversion of the Series G Preferred or upon certain Series G Preferred deemed liquidation events to AR Partners, LLC.

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, 2013 and 2012, the Company recorded $137,000 and $113,000, respectively, 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, 2013, operating loss carryforwards of approximately $48,913,000, which may be applied against future taxable income and will expire in various years through 2033. At December 31, 2012, the Company had operating loss carryforwards of approximately $43,754,000. The increase in carryforwards for the year ended December 31, 2013 is approximately $5,159,000.

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, 2013 and 2012 follows:

	December 31, 2013	December 31, 2012
Statutory federal income tax rate	35%	35%
Permanent items	(12)%	(8)%
State income taxes, net of federal taxes	4%	4%
Change in valuation allowance	(30)%	(30)%
Tax credits claimed	2%	1%
Other	1%	(2)%
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 2008. The Company does not have any material uncertain tax positions as of December 31, 2013 and 2012. The Company does not believe it is reasonably possible that the total amount of unrecognized tax benefits as of December 31, 2013 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, 2013	December 31, 2012
Deferred tax assets (liabilities)		
Current deferred tax assets (liabilities)	$ 298	$ 120
Deferred revenues	—	—
Current deferred tax assets	298	120
Valuation allowances	(298)	(120)
Net current deferred tax assets	$ —	$ —
Net operating loss carryforwards	19,224	17,150
Stock based compensation	2,987	2,532
Research and development tax credit	1,627	1,206
Other	51	10
Non-current deferred tax assets	23,889	20,898
Valuation allowances	(23,884)	(20,882)
Net non-current deferred tax assets	5	16
Non-current deferred tax liabilities	(5)	(16)
Net deferred tax assets	$ —	$ —

The components of the provision for income taxes were as follows:

	December 31, 2013	December 31, 2012
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, 2013 and 2012, the Company recognized $1,693,000 and $2,361,000, as stock-based compensation expense, respectively. Unrecognized compensation expense related to stock options as of December 31, 2013 and 2012 was $1,864,000 and $3,367,000, respectively, which is expected to be recognized over a weighted average period of approximately 1.6 years and 2.2 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, 2013 and 2012:

	Year ended December 31, 2013	Year ended December 31, 2012
Significant assumptions (weighted-average):		
Risk-free interest rate at grant date	1.02%	0.94%
Expected stock price volatility	116.53%	121.90%
Expected dividend payout	0%	0%
Expected option life-years based on management's estimate	6.08 years	5.69 years

Exercise Prices	Options Outstanding			Options Exercisable and vested		
	Number Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price
$0.18-$0.50	5,265,300	7.10	$ 0.37	2,727,860	5.44	$ 0.42
$0.51-$0.75	9,258,093	5.93	$ 0.62	8,898,143	5.90	$ 0.62
$0.76-$1.00	1,817,000	3.33	$ 0.99	1,794,000	3.28	$ 0.99
$1.01-$1.58	1,967,300	6.32	$ 1.35	1,702,400	6.26	$ 1.36
$1.59-$3.20	5,330,000	6.90	$ 1.97	3,836,000	6.84	$ 1.99
	23,637,693	6.24	$ 0.96	18,958,403	5.81	$ 0.97

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 Shares issued under 2006 Plan and 2010 Plan	Weighted Average Exercise Price Per Share
Outstanding at December 31, 2011	14,730,207	$ 1.26
Granted	2,398,000	$ 0.38
Exercised	(17,500)	$ 0.22
Canceled or expired	(1,987,807)	$ 0.78
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

	Number of Shares issued outside the Plan	Weighted Average Exercise Price Per Share
Outstanding at December 31, 2011	8,254,232	$ 0.65
Granted	—	$ —
Exercised	—	$ —
Canceled or expired	—	$ —
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

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 lieu of 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, 2013 and 2012:

	Restricted Stock issued from the 2006 Plan and 2010 Plan	Weighted Average Grant Date Fair Value
Unvested at December 31, 2011	82,927	$ 0.20
Granted	335,000	$ 0.32
Vested	(82,927)	$ 0.20
Forfeited	—	$ —
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

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, 2013 and 2012 was approximately $273,000 and $415,000, respectively. The Company recognized approximately $240,000 and $59,000 of stock-based compensation expense related to the restricted stock awards for the years ended December 31, 2013 and 2012, respectively. As of December 31, 2013 and 2012, total unrecognized compensation costs related to unvested awards were approximately $16,000 and $72,000, respectively, which is expected to be recognized over a weighted-average period of approximately 0.5 and 0.4 years, 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.

As of December 31, 2013 and 2012, there were 0 and 1,600,000 warrants related to the Series A Preferred Stock, respectively; and 0 and 300,000 warrants related to the Series B Preferred Stock, respectively, each at an exercise price of $0.25 per share. 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 with 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.

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.

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 are 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 are convertible into an additional 20,000,000 shares of common stock at an exercise price of $0.15 per share. All Series A Warrants expire on the fifth anniversary of the transaction close, July 24, 2018, regardless of the date the Series A Warrants were issued.

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.

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 are 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 contain 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 are 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 will 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 accounts 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 is 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, 2013 using the Monte-Carlo simulation model. The fair value is affected by changes in inputs to the 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, 2013, the Company recorded a net change in fair value of warrant liability expense of $754,000, in the Consolidated Statements of Operations related to the change in fair value due to the revaluation at December 31, 2013, the change in fair value of the Series A and B Warrants at each exercise date, and for the 3,245,178 Series B Warrants, which expired unexercised on October 24, 2013. As a result of the fair value of the warrant liability at issuance exceeding the total gross proceeds received, the transaction financing costs of $738,000 were recognized as additional other expense. As a result of these three line items on the Consolidated Statements of Operations, the Company recognized a net effect to other expense of $2,882,000 for the 2013 S-1 July Registered Offering for the year ended December 31, 2013.

Series A and B Warrant Exercises

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, 3013. 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 60th 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 10th through to the expiration date of October 24th. 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.

As of December 31, 2013, there were 36,554,822 Series A Warrants and 666,666 Placement Agent Warrants outstanding which the Company has reserved 37,888,154 shares of common stock for future issuance.

Brookstreet Securities Corporation

In 2006 and 2007, warrants were issued to Brookstreet Securities Corporation (Brookstreet) for its services as placement agent for the raising of private equity capital. During February 2012, the remaining 1,721,629 warrants outstanding issued to Brookstreet expired unexercised. The Company reduced the Fair value of warrant liability to zero as of December 31, 2012. In addition, for the year ended December 31, 2012, the Company recorded income of $38,000 in its consolidated statements of operations related to the change in the fair value of warrant liability.

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 1,629,623 warrants to various investors at an exercise price of $0.80 per share of which zero warrants remained outstanding at December 31, 2012. In addition, 1,400,000 warrants were issued 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 to BioTime

During June 2008, the Company entered into an agreement with BioTime, Inc. (“BioTime”). Based on the agreement, BioTime agreed to pay the Company an advance of $250,000 to produce, make, and distribute joint products (as defined in that agreement). As part of the agreement, the Company issued warrants for Bio Time to purchase 30,000 shares of the Company’s common stock at $0.25 per share, all of which expired unexercised in December 2012.

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, 2013 and 2012, there were 200,000 warrants outstanding. These warrants expire in September 2016.

Share data related to warrant transactions as of December 31, 2013 were as follows:

	Preferred Stock		Common Stock	Units		Common Stock							Price per Warrant	
	Series A	Series B	Series A	Series B	Placement Agent	YKA Loan	BioTime	Bridge Loan & non-cash Grants	Brookstreet	Skin Care Marketing	Jan 2013 Financing	Mar 2013 Financing	Total Warrants	Range	Weighted average exercise price
Outstanding, December 31, 2011	1,600,000	300,000				1,400,000	30,000	1,317,921	1,721,629	200,000			6,569,550	$0.25-2.00	$ 0.49
2012															
Issued													—		
Exercised													—		
Forfeited/Expired							(30,000)	(1,317,921)	(1,721,629)				(3,069,550)	$0.56-0.80	$ 0.66
Outstanding, December 31, 2012	1,600,000	300,000				1,400,000	—	—	—	200,000			3,500,000	$0.25-2.00	$ 0.336
2013															
Issued			36,754,822	20,000,000	666,666						5,062,500	2,500,000	64,983,988	$0.15-0.20	$ 0.156
Exercised			(200,000)	(16,754,822)									(16,954,822)	$0.145-0.15	$ 0.147
Forfeited/Expired	(1,600,000)	(300,000)		(3,245,178)		(1,400,000)							(6,545,178)	$0.15-0.25	$ 0.198
Outstanding, December 31, 2013	—	—	36,554,822	—	666,666	—	—	—	—	200,000	5,062,500	2,500,000	44,983,988	$0.145-2.00	$ 0.166

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 $8,588 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 $11,644. 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 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 $11,492 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 $310,000 and $286,000 for the years ended December 31, 2013 and 2012, 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, 2013, are as follows (in thousands):

	Amount
2014	$ 386
2015	397
2016	101
2017	3
Total	$ 887

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. For the month of December 2012, the commission rate was temporarily increased to 25% on net revenues derived from direct sales on qualifying volume of orders. The Company recognized $0 and $73,000 in stock-based compensation for the warrants issued for services during the years ended December 31, 2013 and 2012, respectively.

LSC incurred $80,000 and $149,000 as commission expenses during the years ended December 31, 2013 and 2012, respectively, under the terms of this arrangement and agreement.

Customer Concentration

During the year ended December 31, 2013 for the Biomedical market segment, one major customer accounted for approximately 17% of consolidated revenues, and another major customer accounted for approximately 10% of consolidated revenues. During the year ended December 31, 2012 for the Biomedical market segment, one major customer accounted for 13% 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.

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 December 31,	
	2013	2012
Revenues:		
Cosmeceutical market	$ 3,204	$ 2,192
Biomedical market	2,943	2,375
Total revenues	6,147	4,567
Operating expenses:		
Therapeutic market	8,200	9,106
Cosmeceutical market	2,914	2,585
Biomedical market	2,579	2,691
Total operating expenses	13,693	14,382
Operating income (loss):		
Therapeutic market	(8,200)	(9,106)
Cosmeceutical market	290	(393)
Biomedical market	364	(316)
Total operating income (loss)	$(7,546)	$(9,815)

Geographic Information

The Company's wholly-owned subsidiaries are located in Maryland and California, 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,	
	2013	2012
North America	$ 4,779	$ 3,483
Asia	905	624
Europe	355	372
All other regions	108	88
Total	$ 6,147	$ 4,567

12. Subsequent Events

Additional Financing from Lincoln Park Capital Fund, LLC

Under the Purchase Agreement the Company entered into with Lincoln Park in December 2013, it may sell up to an aggregate of $10,250,000 of common stock from time to time through January 2017. From commencement through December 31, 2013, the Company sold a total of 1,666,666 shares of common stock to Lincoln Park for an aggregate of $250,000 as the Initial Purchase under the Agreement. Subsequent to December 31, 2013, from January 15, 2014 through March 10, 2014, the Company sold an additional 3,800,000 shares to Lincoln Park for an aggregate of approximately $817,000.

S-1 Registration Statement filed in December 2013

The S-1 Registration Statement for the Lincoln Park transaction filed with the SEC in December 2013 and amended in January 2014 to register $10,250,000 of shares of common stock for resale under the Securities Act of 1933 was declared effective on January 13, 2014.

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	$ 901
Transfer agent's fees and expenses	$ —
Printing and engraving expenses	$ 20,000
Legal fees and expenses	$ 50,000
Accounting fees and expenses	$ 18,000
Miscellaneous expenses	$ 31,099
Total	$ 120,000

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.

(a) 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 10,533,333 shares of common stock for an aggregate of $6,206,460.

On March 9, 2012, the Company issued 5,000,000 shares of Series G Preferred Stock to an accredited investor for an aggregate of $5,000,000.

On January 22, 2013, the Company issued 10,125,000 shares of common stock and warrants to purchase 5,062,500 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 5,000,000 shares of common stock and warrants to purchase 2,500,000 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 9,866,666 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 3,333,333 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 5,500,000 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 6,000,000 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 120,000 shares of common stock to three executive officers of the Company, for an aggregate of $12,000.

On September 10, 2014, the Company issued 4,444,445 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 38,777,726 shares of common stock based upon an initial conversion price of $0.06447, Series A Warrants to purchase up to 38,777,726 shares of common stock at an initial exercise price of $0.0921 price per share for a term of 5 ½ years, Series B warrants to purchase up to 38,777,726 shares of common stock at an initial exercise price of $0.06447 per share for a term of six months, and Series C warrants to purchase up to 38,777,726 shares of common stock at an initial exercise price of $0.06447 per share for a term of twelve months, for total proceeds of $2,500,000.

(b) Issuances of stock on conversion of preferred stock.

On March 30, 3012, the holder of the remaining 500,000 shares of Series A Preferred Stock converted their shares to a total of 2,000,000 shares of common stock. This issuance was exempt pursuant to Section 3(a)(9) of the Securities Act. On January 22, 2013, 8,000,000 shares of common stock were issued for the conversion of all 2,000,000 outstanding shares of Series C Preferred Stock, which was an exempt issuance pursuant to Section 3(a)(9) of the Securities Act.

(c) Issuances upon conversion or exercise of warrants.

From July 1, 2011 through October 31, 2014, we issued a total of 212,143 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.

(d) 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 44,665,783 shares of common stock to the warrant holders in exchange for the cancellation of warrants to purchase 36,554,822 shares of common stock and the placement agent warrants for purchase of 666,666 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;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3 or Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference 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.

(5) The undersigned registrant hereby undertakes that, for the purposes of determining liability to any purchaser:

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

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

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) (§ 230.424(b)(2), (b)(5), or (b)(7) of this chapter) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) (§ 230.415(a)(1)(i), (vii), or (x) of this chapter) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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:

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

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Carlsbad, California on, October 31, 2014.

INTERNATIONAL STEM CELL CORPORATION

By: /s/ Andrey Semechkin
Andrey Semechkin
Chief Executive Officer

Pursuant to the requirements of the Securities Act, this 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)	October 31, 2014
/s/ Jay Novak Jay Novak	Chief Financial Officer (Principal Financial and Accounting Officer)	October 31, 2014
/s/ Charles J. Casamento Charles J. Casamento	Director	October 31, 2014
/s/ Paul V. Maier Paul V. Maier	Director	October 31, 2014
/s/ Ruslan Semechkin Ruslan Semechkin	Director	October 31, 2014
/s/ Donald A. Wright Donald A. Wright	Co-Chairman and Director	October 31, 2014

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EXHIBIT INDEX

Exhibit Number	Description
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	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	Warrant Certificate for warrants in connection with Series B Preferred Stock (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on May 12, 2008, File No. 000-51891).
4.7	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)
4.8	Form of Series B Warrant (incorporated by reference to Exhibit 4.9 of the Registrant's Form 8-K filed on July 19, 2013, File No. 000-51891).
4.9	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).
4.10	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	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).
4.12	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).
4.13	Form of Series B Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.14	Form of Series C Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.3 of the Registrant's Form 8-K filed on October 7, 2014, File No. 000-51891).
4.15	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).
5.1	Opinion of DLA Piper LLP (US).
10.9*	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).
10.12	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).
10.13*	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).
10.14*	Employment Agreement with Ruslan Semechkin (incorporated by reference to Exhibit 10.5 of the Registrant's Form 8-K filed on January 5, 2009, File No. 000-51891).
10.19*	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).
10.23	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).

Exhibit Number	Description
10.26*	2010 Equity Participation Plan (incorporated by reference to Appendix A of the Registrant's Schedule 14A filed March 30, 2010, File No. 000-51891).
10.27	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).
10.28	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).
10.29	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).
10.30	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).
10.31*	Consulting Contract dated March 9, 2012, with Kenneth C. Aldrich (incorporated by reference to Exhibit 10.4 of the Registrant's Form 8-K filed on March 15, 2012, File No. 000-51891).
10.32*	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).
10.33*	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).
10.34*	Consulting Agreement with James Berglund dated July 24, 2012 (incorporated by reference to Exhibit 4.8 of the Registrant's Form 10-Q filed on November 8, 2012, File No. 000-51891).
10.35	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).
10.36	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).
10.37	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).
10.38	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).
10.39	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).
10.40	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).
10.41	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).
10.42	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).

Exhibit Number	Description
10.43	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).
10.44	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).
10.45	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).
10.46	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).
10.47	Securities Purchase Agreement dated May 29, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on June 4, 2014, File No. 000-51891).
10.48	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).
10.49	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).
10.50	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).
10.51	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).
10.52	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).
10.53	Amendment Agreement to Registration Rights Agreement, dated October 29, 2014, between the Company and certain purchasers thereto.
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.
23.3	Consent of DLA Piper LLP (US) (included in exhibit 5.1).
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.

Exhibit 5.1

DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, California 92121-2133
www.dlapiper.com

T 858.677.1400
F 858.677.1401

October 31, 2014

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, CA 92008

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the registration under the Securities Act of 1933, as amended, by International Stem Cell Corporation, a Delaware corporation (the "***Company***"), by means of a Registration Statement on Form S-1 (the "***Registration Statement***") being filed with the Securities and Exchange Commission (the "***Commission***") covering up to an aggregate of 77,555,452 shares of common stock, par value $0.001 per share ("***Common Stock***") issuable upon conversion of the Company's Series H Preferred Stock.

In connection with this opinion, we have examined and relied upon the Registration Statement and the related Prospectus, the Company's Certificate of Incorporation, as amended, and Amended and Restated Bylaws, as currently in effect, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below.

In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the genuineness and authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness of such documents.

With respect to the Common Stock to be issued upon conversion of the Series H Preferred Stock, when such Common Stock has been issued and delivered in accordance with the terms of the Series H Preferred Stock, such Common Stock will be validly issued, fully paid, and non-assessable.

In addition to the qualifications set forth above, the foregoing opinion is further qualified as follows:

(a) The foregoing opinion is rendered as of the date hereof. We assume no obligation to update such opinion to reflect any facts or circumstances that may hereafter come to our attention or changes in the law which may hereafter occur.

(b) We are members of the Bar of the State of California and we do not express any opinion herein concerning any law other than the Delaware General Corporation Law, the substantive law of the State of California and the substantive federal securities laws of the United States of America. We express no opinion as to the laws of any other state or jurisdiction of the United States or of any foreign jurisdiction. We have made no inquiry into the laws and regulations or as to laws relating to choice of law or conflicts of law principles. The opinion expressed herein is subject to the effect of judicial decisions which may permit the introduction of parol evidence to modify the terms or the interpretation of agreements.

(c) We express no opinion as to compliance with the securities (or blue sky) laws of any jurisdiction.

(d) This opinion is limited to the matters set forth herein, and no other opinion should be inferred beyond the matters expressly stated.

We consent to the reference to our firm under the caption “Legal Matters” in the Prospectus and to the inclusion of this opinion as an exhibit to the Registration Statement. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ DLA Piper LLP (US)

DLA Piper LLP (US)

Exhibit 10.53

AMENDMENT AGREEMENT

AMENDMENT TO REGISTRATION RIGHTS AGREEMENT, dated as of October 29, 2014, (this "Amendment"), to the Registration Rights Agreement by and between International Stem Cell Corporation, a Delaware corporation (the "Company") and each purchaser identified on the signature pages thereto (each, including its successors and assigns, a "Purchaser" and collectively, the "Purchasers"), dated as of October 14, 2014 (the "Agreement"). All such terms not defined herein shall have such meanings as defined in the Agreement and the Purchase Agreement (as defined below).

WHEREAS, pursuant to the Securities Purchase Agreement, by and between the Company and the Purchasers, dated as of October 7, 2014 (the "Purchase Agreement"), the Company issued to the Purchasers (i) 2,000 share of the Company's Series H-1 Convertible Preferred Stock (the "Series H-1 Preferred Stock") initially convertible into 31,022,181 shares (the "Series H-1 Conversion Shares") of the Company's common stock, par value $0.001 per share (the "Common Stock"), (ii) 500 shares of the Company's Series H-2 Convertible Preferred Stock (the "Series H-2 Preferred Stock" and together with the Series H-1 Preferred Stock, the "Preferred Stock") initially convertible into 7,755,545 shares of Common Stock (the "Series H-2 Conversion Shares" and together with the Series H-1 Conversion Shares, the "Conversion Shares"), (iii) Series A Common Stock purchase warrants (the "Series A Warrants") to purchase up to 38,777,726 shares of Common Stock (the "Series A Warrant Shares"), (iv) Series B Common Stock purchase warrants (the "Series B Warrants") to purchase up to 38,777,726 shares of Common Stock (the "Series B Warrant Shares"), and (v) Series C Common Stock purchase warrants (the "Series C Warrants") to purchase up to 38,777,726 shares of Common Stock (the "Series C Warrant Shares" and collectively with the Series A Warrant Shares and the Series B Warrant Shares, the "Warrant Shares");

WHEREAS, pursuant to the Agreement, the Agreement, the Company is required to file the Initial Registration Statement on or before the 30th calendar day following the Agreement, and have such Initial Registration Statement declared effective by the 60th calendar day following the date of the Agreement (or, in the event of a "full review" by the Commission, the 105th calendar day following the date of the Agreement);

WHEREAS, the Company has requested that the Initial Registration Statement only include for registration for resale 200% of the Conversion Shares and shall not include any Warrant Shares. Additionally, the Company has requested that it is only required to register for resale 100% of the Warrant Shares;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Company and the Purchasers agree as follows:

1. Initial Registration Statement. The Company and the Purchasers hereby agree that if the Initial Registration Statement registers for resale 200% of the Conversion Shares, and such Initial Registration Statement registering for resale 200% of the Conversion Shares is declared effective by the 60th calendar day following the date of the Agreement (or in the event of a "full review" by the Commission, the 105th calendar day following the date of the Agreement), then the Company shall not be in breach of clause (iv) of Section 2(d) of the Agreement and no liquidated damages shall accrue; provided, however, in the event that such Initial Registration Statement is not declared effective on or before the 60th calendar day following the date of the Agreement (or in the event of a "full review" by the Commission, the 105th calendar day following the date of the Agreement), the terms of this clause shall be null and void and the terms and conditions of the Agreement shall remain in full force and effect. Notwithstanding the foregoing, such Initial Registration Statement shall not register for resale any Warrant Shares; provided, however, the Warrant Shares shall continue to be Registrable Securities pursuant to the terms and conditions of the Agreement.

2. Registrable Securities. The Company and the Purchasers hereby agree that the Company shall only be required to register 200% of the Conversion Shares and 100% of the Warrant Shares. As such, clauses (a) and (b) of the definition of Registrable Securities in the Agreement shall be amended and restated as follows:

> *"(a) 200% of the shares of Common Stock then issued and issuable upon conversion in full of the Preferred Stock (assuming on such date the shares of Preferred Stock are converted in full without regard to any conversion limitations therein), (b) 100% of all Warrant Shares then issued and issuable upon exercise of the Warrants (assuming on such date the Warrants are exercised in full without regard to any exercise limitations therein)*,"

In addition, the definition "*Additional Registrable Securities*" shall be deleted in its entirety and any and all references to Additional Registrable Securities in the Agreement shall be ignored.

4. The definition "filing date" is hereby amended and restated in its entirety as follows:

"Filing Date" means, with respect to, (i) the Initial Registration Statement required hereunder, the 30th calendar day following the date hereof, (ii) the Registrable Securities not registered for resale on the Initial Registration Statement, the earlier of (A) the fifteenth calendar (15th) day after the holders of the Series H-1 Preferred Stock have notified the Company that such holders have sold substantially all of their Conversion Shares and (B) the four (4) month anniversary of the date of the Agreement (assuming the holders of the Series H-1 Preferred Stock have notified the Company that such holders have sold substantially all of their Conversion Shares) and (iii) any additional Registration Statements which may be required pursuant to Section 2(c) or Section 3(c), two (2) calendar days of the earliest practical date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

3. Termination Date of Series B Warrant. The Company hereby agrees to extend the Termination Date (as defined in the Series B Warrant) of the Series B Warrant by an additional 20 Trading Days in the event that all of the Series B Warrant Shares are not registered for resale by the Holder pursuant to an effective Registration Statement on or before the Effectiveness Date. As such, the second clause of the first sentence in the first paragraph of the Series B Warrant shall be amended and restated as follows:

> "*; provided, however, in the event that all of the Warrant Shares are not registered for resale by the Holder pursuant to an effective Registration Statement on or before the Effectiveness Date (as defined in the Registration Rights Agreement), the Termination Date shall be tolled and extended until the 30th Trading Day following the adjustment to the Exercise Price upon the Effective Date pursuant to Section 2(b).*"

4. Transaction Documents. The Agreement and the related Transaction Documents are hereby amended so that the term "Transaction Documents" includes this Amendment. The foregoing amendments are given solely in respect of the transactions contemplated hereby. Except as expressly set forth above, all of the terms and conditions of the Transaction Documents shall continue in full force and effect after the execution of this agreement and shall not be in any way changed, modified or superseded by the terms set forth herein.

5. Governing Law. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by the terms of the Purchase Agreement.

6. Execution and Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party, and such counterparts may be delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file.

[*Remainder of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by their respective authorized signatories as of the date first indicated above.

INTERNATIONAL STEM CELL CORPORATION

By: /s/ Jay Novak

Name: Jay Novak

Title: Chief Financial Officer

[PURCHASER SIGNATURE PAGES TO ISCO

AMENDMENT AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to Registration Rights Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: Sabby Healthcare Volatility Master Fund, Ltd.

Signature of Authorized Signatory of Purchaser: /s/ Robert Grundstein

Name of Authorized Signatory: Robert Grundstein

Title of Authorized Signatory: COO of Investment Manager

Email Address of Purchaser:_____

[PURCHASER SIGNATURE PAGES TO ISCO

AMENDMENT AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to Registration Rights Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: Sabby Volatility Warrant Master Fund, Ltd.

Signature of Authorized Signatory of Purchaser: /s/ Robert Grundstein

Name of Authorized Signatory: Robert Grundstein

Title of Authorized Signatory: COO of Investment Manager

Email Address of Purchaser:_____

Exhibit 23.1

Mayer Hoffman McCann P.C.
An Independent CPA Firm

10616 Scripps Summit Court
San Diego, California 92131
858-795-2000 ph
858-795-2001 fx
www.mhm-pc.com

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the use of our report dated March 17, 2014, 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, 2013 and 2012, in this Registration Statement on Form S-1, and to all references to our Firm included in this Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California
October 31, 2014