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As filed with the Securities and Exchange Commission on July 1, 2013

Registration No. 333-184493

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Amendment No. 4
to
Form S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

INTERNATIONAL STEM CELL CORPORATION

(Exact name of registrant as specified in its charter)

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

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

JAY NOVAK
5950 Priestly Drive
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(760) 653-1126
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Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as possible after this Registration Statement becomes effective.

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

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

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered(1)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Units, each consisting of:	$3,500,000	—
(i) Common Stock, par value $0.001 per share(3)	—	—
(ii) Series A Warrants to purchase common stock(2)	$3,500,000	—
Common Stock, par value $0.001 per share, issuable upon exercise of the Series A Warrants(3)	—	—
Series B Warrants to purchase additional units(2)	$3,500,000	—
Units issuable upon exercise of Series B Warrants, each unit consisting of(3)	—	—
(i) Common Stock, par value $0.001 per share(3)	—	—
(ii) Series A Warrants to purchase common stock(2)	$3,500,000	—
Common Stock, par value $0.001 per share, issuable upon exercise of the Series A Warrants(3)	—	—
Placement Agent Warrants to purchase units(3)	$175,000	—
Units issuable upon exercise of Placement Agent Warrants, each unit consisting of(3)	—	—
(i) Common Stock, par value $0.001 per share(3)	—	—
(ii) Series A Warrants to purchase common stock(2)	$175,000	—
Common Stock, par value $0.001 per share, issuable upon exercise of the Series A Warrants(3)	—	—
Total	$14,350,000	$1,957.34(4)

(1) Pursuant to and in accordance with Rule 416 under the Securities Act, this registration statement also covers such indeterminate number of additional shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends, recapitalizations or similar transactions.
(2) Estimated pursuant to Rule 457(o) solely for the purpose of calculating the registration fee.
(3) No registration fee is required pursuant to Rule 457(g).
(4) $2,046 was previously paid, and the excess previously paid may be used to offset the filing fee of a future registration statement.

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

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

SUBJECT TO COMPLETION, DATED JULY 1, 2013

PROSPECTUS

INTERNATIONAL STEM CELL CORPORATION

17,500,000 Units
Each Unit Consisting of One Share of Common Stock
and
One Series A Warrant to Purchase One Share of Common Stock
and
17,500,000 Series B Warrants, Each to Purchase One Unit

We are offering up to 17,500,000 units, each unit consisting of one share of our common stock and one Series A Warrant to purchase one share of our common stock at an exercise price of $ per share. The units are being offered at a price of $ per unit. We are also offering up to 17,500,000 Series B Warrants, each to purchase one unit.

Units will not be issued or certificated. Purchasers will receive only shares of common stock, Series A Warrants and Series B Warrants. The common stock, the Series A Warrants and the Series B Warrants may be transferred separately immediately upon issuance. Purchasers in this offering will receive one Series B Warrant for each unit purchased by them in this offering.

Each Series A Warrant will be immediately exercisable at an initial exercise price of $ per share. The Series A Warrants will expire on the fifth anniversary of the initial date of issuance.

Each Series B Warrant is exercisable for one unit, each of which consists of one share of our common stock and one Series A Warrant to purchase one share of our common stock. The Series B Warrants are exercisable immediately at an initial exercise price of $ per unit, subject to adjustment. Beginning at the close of trading on the 60th trading day following the date of issuance, and effective beginning on the third trading day immediately preceding such 60th trading day, the Series B Warrants will be 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 our common stock on such 60th trading day. The Series B Warrants will expire at the close on the 65th trading day following the date of issuance.

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 June 27, 2013 on the OTC QB was $0.25 per share. There is no trading market for either series of warrants and we do not intend to list either series of warrants on any national securities exchange or quotation system. Without an active market, the liquidity of the warrants will be limited.

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 5 of this prospectus.

	Per Unit	Total
Public offering price	$	$
Placement agent's fees	$	$
Offering proceeds, before expenses, to us(1)	$	$

(1) Excludes potential proceeds from the exercise of the warrants offered hereby.

Roth Capital Partners has agreed to act as our exclusive placement agent in connection with this offering. The placement agent is not purchasing the securities offered by us, and is not required to sell any specific number or dollar amount of securities, but will assist us in this offering on a commercially reasonable "best efforts" basis. Additionally, there are no arrangements to place the funds raised in this offering in an escrow, trust, or similar account. We have agreed to pay the placement agent a cash fee equal to 7% of the gross proceeds of the offering of securities by us, and to issue to it "Placement Agent Warrants" to purchase units equal to 5% of the aggregate number of units issued in the offering (in each case excluding any proceeds from, or units issued to, our officers, directors or their affiliates). The Placement Agent Warrants will have substantially the same terms as the Series B Warrants offered hereby, except that the Placement Agent Warrants will (i) have an exercise price of $ 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., or FINRA. We also have agreed to pay the placement agent a cash solicitation fee equal to 7% of the gross proceeds, if any, received by us upon the exercise of the Series B Warrants offered hereby under certain circumstances and have agreed to reimburse the placement agent for its reasonable out-of-pocket expenses up to $75,000. We estimate the total expenses of this offering, excluding the placement agent fees, will be approximately $330,000. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, placement agent fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. We intend that the offering will end on July , 2013, unless extended by us and the placement agent. See "Plan of Distribution" beginning on page 65 of this prospectus for more information on this offering and the placement agent arrangements. All costs associated with the registration will be borne by us.

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 supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Roth Capital Partners

The date of this prospectus is .

OFFERS AND SALES WILL ONLY BE MADE BY US OR THE PLACEMENT AGENT IN JURISDICTIONS WHERE THE PLACEMENT AGENT BELIEVES THERE ARE EXEMPTIONS FROM THE REGISTRATION REQUIREMENTS UNDER THE LAWS AND REGULATIONS OF THE STATE IN QUESTION. BROKERS OR DEALERS EFFECTING TRANSACTIONS IN THE SECURITIES SHOULD CONFIRM THAT THE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES LAWS OF THE STATE OR STATES IN WHICH SALES OF THE SECURITIES OCCUR AS OF THE TIME OF SUCH SALES, OR THAT THERE IS AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES LAWS OF SUCH STATES.

THIS PROSPECTUS IS NOT AN OFFER TO SELL ANY SECURITIES OTHER THAN THE SECURITIES COVERED HEREBY. THIS PROSPECTUS IS NOT AN OFFER TO SELL SECURITIES TO ANY PERSON OR IN ANY PARTICULAR JURISDICTION IN ANY CIRCUMSTANCES IN WHICH SUCH AN OFFER OR SALE IS UNLAWFUL.

INTERNATIONAL STEM CELL CORPORATION

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You should read this prospectus, including all documents incorporated herein by reference, together with additional information described under "Where You Can Find More Information".

You may obtain the information incorporated by reference without charge by following the instructions under "Where You Can Find More Information".

About This Prospectus

You should rely only on the information contained in this prospectus and any related free writing prospectus that we may provide to you in connection with this offering. We have not, and the placement agent has 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. We are not, and the placement agent is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. 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 "International Stem Cell Corporation," "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 5 and our financial statements and notes thereto that appear elsewhere in this prospectus.

Business Overview

We are a developmental stage biotechnology company focused on therapeutic and biomedical product development with multiple long-term therapeutic opportunities and two revenue-generating businesses offering potential for increased future revenue.

The Company is a development stage entity with no revenue generated from its principal operations in therapeutic research and development efforts. To date, the Company has generated limited and unpredictable incidental revenues to support its core therapeutic research and development efforts.

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 be differentiated into many different cells in the human body. 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. ISCO's collection of hpSCs, known as UniStemCell™, currently consists of fifteen stem cell lines. We have facilities and manufacturing protocols that comply with the requirements of Good Manufacturing Practice (GMP) standards as promulgated by the US Code of Federal Regulations and enforced 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:

- Neuronal 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.
- Three-dimensional eye structures to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

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.

	The Offering
Securities offered	Up to 17,500,000 units. Each unit will consist of one share of our common stock and one Series A warrant to purchase one share of our common stock. The Series A Warrants (including the Series A Warrants issuable upon the exercise of the Series B Warrants) will be exercisable immediately at an initial exercise price of $ per share and will expire on the fifth anniversary of the initial date of issuance. See "Description of Securities-Series A Warrants". In addition we are offering 17,500,000 Series B Warrants, each to purchase one unit. Purchasers in this offering will receive one Series B Warrant for each unit purchased by them in this offering. The Series B Warrants are exercisable immediately at an initial exercise price of $ per unit, subject to adjustment. Beginning at the close of trading on the 60th trading day following the date of issuance, and effective beginning on the third trading day immediately preceding such 60th trading day, the Series B Warrants will be 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 our common stock on such 60th trading day. The Series B Warrants will expire at the close of business on the 65th trading day following the date of issuance. See "Description of Securities-Series B Warrants".
Common stock outstanding before this offering	112,363,815 shares(1)
Common stock included in the units	17,500,000 shares, excluding the shares of common stock underlying the Series A Warrant and Series B Warrants.
Common stock to be outstanding after the offering	182,363,815 shares assuming full exercise of the Series B Warrants.
Use of proceeds	We expect to use the proceeds received from the offering to fund our research and development activities, including our preclinical non-human primate safety and efficacy and rodent pre-clinical safety studies for the Parkinson's disease program and for general working capital needs. See "Use of Proceeds" on page 23.
OTC QB Symbol	ISCO
Listing	Our common stock is quoted on the OTC QB and trades under the symbol "ISCO". There is no trading market for either series of warrants and we do not intend to list either series of warrants on any national securities exchange or quotation system. Without an active market, the liquidity of the warrants will be limited.
Risk Factors	Investing in the securities involves substantial risks. See "Risk Factors" beginning on page 5 and the other information in this prospectus for a discussion of the factors you should consider before you decide to invest in the securities.

(1) Assumes the sale of all of the units offered hereby. The number of shares of common stock shown above to be outstanding after this offering is based on the 112,363,815 shares outstanding as of March 31, 2013 and excludes:

- 22,676,193 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 $0.99 per share;
- 7,862,500 shares of common stock reserved for issuance under various outstanding warrant agreements, at an exercise price of $0.20 per share, 1,400,000 shares of common stock reserved for issuance an outstanding warrant agreement, at an exercise price of $0.25 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;
- 36,403,812 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series B, Series D and Series G Preferred Stock;
- 17,050,980 additional shares of common stock reserved for future issuance under our 2006 and 2010 stock option plans;
- the shares of common stock issuable upon the exercise of the warrants offered hereby.

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. We do not have any sources of significant or sustained revenues and may not have any 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, 2012 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 quarter ended March 31, 2013 was approximately $620,000 per month excluding capital expenditures and patent costs averaging $60,000 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 2013 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 has been or is being funded in part by government grants. Our research may also be government-funded in the future. In connection with certain grants, the governmental entity involved retains various rights in the technology developed with the grant. These rights could restrict our ability to fully capitalize upon the value of this research by reducing total revenues that might otherwise be available since such governmental rights may give the government the right to practice the invention without payment of royalties if we do not comply with applicable requirements.

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

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

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

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

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

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

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

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

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

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

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

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

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

Considerable research in the areas of stem cells, cell therapeutics and regenerative medicine is being performed in countries outside of the United States, and a number of our competitors are located in those countries. The

laws protecting intellectual property in some of those countries may not provide adequate protection to prevent our competitors from misappropriating our intellectual property.

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

Although our primary focus relates to intellectual property we have developed internally, some of the patents we utilize are licensed to us by 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 science, 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.

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. In the past year we have had significant turnover in our management personnel, and 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 May 31, 2013, Dr. Andrey Semechkin, Chief Executive Officer and Co-Chairman of the Board of Directors, and Dr. Ruslan Semechkin, Vice President of International Stem Cell and a director, beneficially own

approximately 41% of our outstanding shares of common stock, including shares issuable upon conversion of all the outstanding shares of our Series D and Series G Preferred Stock and shares issuable upon exercise of options and warrants. 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 six 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 three 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 three separate series of outstanding preferred stock, including Series B, Series D and Series G 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 $0.20 to $0.38 per share). Additionally, subject to the consent of the holders of our existing preferred stock, our Board of Directors has the power to issue additional series of preferred stock and to designate, as it deems appropriate (subject to the rights of the holders of the current series of preferred stock), the special dividend, liquidation or voting rights of the shares of those additional series. The creation and designation of any new series of preferred stock could adversely affect the voting power, dividend, liquidation and other rights of holders of our common stock and, possibly, any other class or series of stock that is then in existence.

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

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

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

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

Shares eligible for future sale may adversely affect the market.

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

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

Our Certificate of Incorporation authorizes the Board of Directors to issue up to 20,000,000 shares of preferred stock and our Board of Directors has created and issued shares of three series of preferred stock that remain outstanding, including Series B, Series D and Series G Preferred Stock. The terms of the Series B, Series D and

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

The sale or issuance of 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, 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 postchange 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 sale of our common stock to Aspire Capital may cause substantial dilution to our existing stockholders and the sale of the shares of common stock acquired by Aspire Capital could cause the price of our common stock to decline.

On December 9, 2010, we entered into a purchase agreement with Aspire Capital which provided that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $25.0 million of our common stock. As of May 31, 2013, we have sold Aspire Capital 10,533,333 shares of common stock for aggregate proceeds of $6,206,000, and we may sell Aspire Capital up to an additional $18,794,000 of our common stock in the future. Pursuant to the purchase agreement, the number of shares of common stock that we may designate Aspire Capital to purchase is dependent on the closing price of our common stock on the date that we provide Aspire Capital with a purchase notice directing it to purchase

shares, and the purchase price per share is 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 of our common stock during the 12 consecutive business days preceding the date of sale. If we elect to sell additional shares to Aspire Capital under the Common Stock Purchase Agreement, depending upon market liquidity at the time, it may cause the trading price of our common stock to decline.

After Aspire Capital has acquired additional shares of our common stock under the purchase agreement, it may sell all, some or none of such shares. In connection with the purchase agreement, the Company also entered into a registration rights agreement with Aspire Capital, dated December 9, 2010 that provides, among other things, that the Company will register the resale of all shares acquired by Aspire Capital under the purchase agreement. Therefore, sales to Aspire Capital by us pursuant to the purchase agreement may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock to Aspire Capital pursuant to the purchase agreement, or anticipation of such sales, as well as the resale of such shares by Aspire Capital, 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. However, we have the right to control the timing and amount of any sales of our shares to Aspire Capital, and we may terminate the purchase agreement at any time at our discretion without any cost 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 May 31, 2013, there were 9,462,500 warrants, and 16,561,438 vested and 7,433,255 non-vested stock options outstanding, and we may issue additional options, warrants and other types of equity in the future as part of stock-based compensation, capital raising transactions, technology licenses, financings, strategic licenses or other strategic transactions. To the extent these options and warrants are ultimately exercised, existing common stockholders would experience additional dilution which may cause the price of our common stock to decline.

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

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

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

Rules adopted by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 require us to perform an annual assessment of our internal controls over financial reporting and certify the effectiveness of those controls. The standards that must be met for management to assess the internal controls over financial reporting now in effect are complex, costly and require significant documentation, testing and possible remediation to meet the detailed standards. We may encounter problems or delays in completing activities necessary to make an assessment of our internal controls over financial reporting. If we cannot perform the assessment or certify that our internal controls over financial reporting are effective investor confidence and share value may be negatively impacted.

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

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

Risks Related to this Offering

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

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

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

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the assumed sale of 17,500,000 units in this offering at an assumed public offering price of $0.20 per unit (80% of the closing bid price of our common stock on June 27, 2013), and after deducting estimated placement agent fees and estimated offering expenses payable by us, and attributing no value to the warrants, if you purchase units in this offering, you will suffer immediate and substantial dilution of approximately $0.15 per share in the net tangible book value of the common stock you acquire. In the event that you exercise your warrants, you will experience additional dilution to the extent that the exercise price of those warrants is higher than the book value per share of our common stock. See “Dilution” below for a more detailed discussion of the dilution you will incur if you purchase securities in this offering.

There is no public market for the warrants to purchase common stock in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing the warrants on any securities exchange or quotation system. Without an active market, the liquidity of the warrants will be limited.

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

The placement agent in this offering will offer the securities on a “best-efforts” basis, meaning that we may raise substantially less than the total maximum offering amounts. We will not provide any refund to investors if less than all of the securities are sold. Further, during 2011, 2012 and 2013, we have used a significant amount of cash to finance the continued development and testing of our product candidates. If we continue to use cash at this rate we will need significant additional financing, which we may seek to raise through, among other things, public and private equity offerings and debt financing. Any equity financings will likely be dilutive to existing stockholders, and any debt financings will likely involve covenants restricting our business activities. Additional financing may not be available on acceptable terms, or at all.

Our common stock is not listed on a national securities exchange, and U.S. holders of warrants may not be able to exercise their warrants without compliance with applicable state securities laws and the value of your warrants may be significantly reduced.

Our common stock is not listed on a national securities exchange, and the exercise of the warrants by U.S. holders may not be exempt from state securities laws. As a result, depending on the state of residence of a holder

of the warrants, a U.S. holder may not be able to exercise its warrants unless we comply with any state securities law requirements necessary to permit such exercise or an exemption applies. Although we plan to use our reasonable efforts to assure that U.S. holders will be able to exercise their warrants under applicable state securities laws if no exemption exists, there is no assurance that we will be able to do so. As a result, since our common stock is not listed on a national securities exchange, your ability to exercise your warrants may be limited. The value of the warrants may be significantly reduced if U.S. holders are not able to exercise their warrants under applicable state securities laws.

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

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

The Series A warrants may not have any value.

The Series A warrants have an exercise price of $ per share and expire on the fifth anniversary of the initial date of issuance. In the event our common stock price does not exceed the exercise price of the Series A warrants during the period when the Series A warrants are exercisable, the Series A warrants may not have any value.

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

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

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

USE OF PROCEEDS

We estimate that the net cash proceeds to us from the sale of the units offered by this prospectus will be approximately $2.9 million assuming the sale of 17,500,000 units at an assumed public offering price of $0.20 per unit (80% of the closing bid price of our common stock on June 27, 2013) after deducting estimated placement agent fees and estimated offering expenses payable by us. However, we may not be successful in selling any or all of the securities offered hereby; as a result, we may receive significantly less in net proceeds, and the net proceeds received may not be sufficient to continue to operate our business.

An $0.01 increase (decrease) in the assumed public offering price of $0.20 per unit would increase (decrease) the expected net cash proceeds of the offering to us by approximately $163,000. An increase (decrease) of 500,000 in the assumed number of units sold in this offering would increase (decrease) the expected net cash proceeds of the offering to us by approximately $93,000, assuming a public offering price of $0.20 per unit.

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

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

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

Therapeutic research programs involving preclinical animal studies and new stem cell line derivation	$ 2,140
General working capital purposes	$ 855
Maximum net proceeds of the offering	$ 2,995

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

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

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 May 31, 2013, we had 112,391,815 shares of common stock outstanding, and approximately 646 holders of record of our common stock, and we had 5,300,043 shares of preferred stock outstanding, and six holders of record of our preferred stock, with 5,300,043 shares of preferred stock being convertible into 36,403,812 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 2013, 2012 and 2011, are reported below:

	Market Price	
	High	Low
Fiscal Year 2013		
First Quarter	$0.41	$0.19
Second Quarter (through June 27, 2013)	$0.34	$0.20
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
Fiscal Year 2011		
First Quarter	$2.20	$1.24
Second Quarter	$1.34	$0.82
Third Quarter	$1.08	$0.67
Fourth Quarter	$0.84	$0.37

DILUTION

If you invest in our securities, you will experience dilution to the extent of the difference between the public offering price of the units (attributing no value to the warrants) and the net tangible book value of our common stock immediately after this offering.

Net tangible book value per share is equal to total assets less intangible assets and total liabilities, divided by the number of shares of our outstanding common stock. Our net tangible book value as of March 31, 2013 was approximately $3.5 million, or $0.03 per share of common stock, (excluding the effect of approximately $4.9 million related to our Series G Preferred Stock that has been classified as mezzanine equity, as opposed to a liability, on the Company's condensed consolidated balance sheet).

After giving effect to assumed sale of 17,500,000 units in this offering at an assumed public offering price of $0.20 per unit (the closing bid price of our common stock on June 27, 2013) after deducting estimated placement agent fees and estimated offering expenses payable by us, and attributing no value to the warrants, our as adjusted net tangible book value as of March 31, 2013 would have been approximately $6.4 million, or $0.05 per share. This represents an immediate increase in net tangible book value of $0.02 per share to existing stockholders and an immediate dilution in net tangible book value of $0.15 per share to new investors purchasing our units in this offering. The following table illustrates this per share dilution:

Assumed public offering price per unit		$ 0.20
Net tangible book value per share as of March 31, 2013	$0.03	
Increase per share attributable to new investors	0.02	
As adjusted net tangible book value per share after this offering		0.05
Dilution per share to new investors		$ 0.15

The number of shares of common stock to be outstanding after this offering is based on 112,363,815 shares outstanding as of March 31, 2013 and excludes:

- 22,676,193 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 $0.99 per share;
- 7,862,500 shares of common stock reserved for issuance under various outstanding warrant agreements, at an exercise price of $0.20 per share, 1,400,000 shares of common stock reserved for issuance an outstanding warrant agreement, at an exercise price of $0.25 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;
- 36,403,812 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series B, Series D and Series G Preferred Stock;
- 17,050,980 additional shares of common stock reserved for future issuance under our 2006 and 2010 stock option plans;
- the shares of common stock issuable upon the exercise of the warrants offered hereby.

A $0.01 increase (decrease) in the assumed public offering price of $0.20 per unit would not change our as adjusted net tangible book value or dilution per share to new investors, assuming that the number of units offered by us remains the same. A $0.04 increase (decrease) in the assumed public offering price of $0.20 per unit would be required to increase (decrease) our as adjusted net tangible book value by approximately $0.01 and dilution per share to new investors by approximately $0.01, assuming the number of units offered by us remains the same. A 500,000 increase (decrease) in the number of units offered by us would not change our as adjusted net tangible book value or dilution per share to new investors, assuming a public offering price of $0.20 per unit. A 5 million increase (decrease) in the number of units offered by us would be required to increase (decrease) our as adjusted net tangible book value by approximately $0.01 and dilution per share to new investors by $0.01, assuming a public offering price of $0.20 per unit.

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 months ended March 31, 2013 compared with the three months ended March 31, 2012

Revenues

We are considered a development stage entity with no revenue generated from our principal operations in therapeutic research and development efforts. To date, we have generated limited and unpredictable incidental revenues to support our core therapeutic research and development efforts. Revenue for the three months ended March 31, 2013 totaled $1.29 million, compared to $1.08 million for the three months ended March 31, 2012. Lifeline Skin Care, Inc. ("LSC") contributed $650,000 or 51% of total revenue in the three months ended March 31, 2013, compared to $547,000 or 51% of total revenue for the three months ended March 31, 2012. The increase of $103,000 or 19% in LSC's revenue was as a result of our strategic efforts to expand and diversify our sources of revenue. Lifeline Cell Technology, LLC ("LCT") revenue of $635,000 for the three months ended March 31, 2013, accounted for 49% of total revenue, compared to $530,000, or 49% of total revenue for the three months ended March 31, 2012. LCT's revenue increased by $105,000 or 20% primarily due to higher sales to OEM customers and international distributors.

Cost of sales

Cost of sales for the three months ended March 31, 2013 was $334,000 or 26% of revenue, compared to $324,000 or 30% of revenue for the three months ended March 31, 2012. The favorable reduction in cost of sales as a percentage of revenue for the three months ended March 31, 2013, compared to the corresponding period in 2012, is primarily due to lower costs of production for LSC, and a shift in sales mix from lower margin products to higher margin products for LCT.

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 as sales volume continues to increase for these products, we anticipate further improvements in the cost of sales as a percentage of revenue for both LSC and LCT.

Research and Development ("R&D")

Research and development expenses were $721,000 for the three months ended March 31, 2013, compared to $937,000 for the same period in 2012. The decrease of $216,000 or 23% is primarily due to lower laboratory supplies of $78,000, personnel-related spending of $64,000, stem cell line research and testing expenses of $40,000, and stock-based compensation expense of $27,000.

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 GMP 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 initiation of a non-human primate (NHP) PD study in the fourth quarter of 2012, the release of pre-clinical rodent and NHP PD study data in the first quarter of 2013 and the initiation of a Gunn rat rodent study to look at CNS, a rare but sometimes fatal inherited liver disease.

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 three months ended March 31, 2013 were $511,000, reflecting an increase of $15,000 or 3%, as compared to $496,000 for the three months ended March 31, 2012. The increase was primarily driven by enhanced efforts in advertising and promotion and e-commerce infrastructure, of $84,000, to market our skin care products. There was also an increase in shipping and logistical costs of $22,000 largely due to the increase in sales. The increase was partially offset by a reduction in consulting expense of $58,000, and in stock-based compensation expense of $46,000.

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 March 31, 2013 were $1.42 million, reflecting a decrease of $620,000 or 30%, compared to $2.04 million for the same period in 2012. The decrease is largely attributable to a more streamlined operating cost structure including reductions in personnel-related spending resulting from lower headcount of $236,000, stock-based compensation expense of $171,000, professional accounting fees and corporate governance of $99,000, corporate support expenses of $54,000, legal fees of $36,000, and consulting expense of $25,000.

Other Income/Expense

Other expense was $12,000 for the three months ended March 31, 2013. For the three months ended March 31, 2012 we recorded other income of $42,000, mostly related to a decrease in the fair value of our warrant liabilities which expired on February 14, 2012.

Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

Revenues

We are considered a development stage company, and as such our revenues are limited and not predictable. Revenue for the year ended December 31, 2012, totaled $4.57 million, compared to $4.53 million in 2011. Lifeline Cell Technology (LCT) contributed $2.38 million or 52% of total revenue in 2012, compared to $2.08 million or 47% of total revenue in 2011. The increase of $296,000 or 14% in LCT's revenue for 2012 was driven primarily by higher sales to OEM customers and international distributors. Lifeline Skin Care's (LSC) revenue of $2.19 million in 2012 accounted for 48% of total revenue, compared to $2.45 million or 53% of total revenue in 2011. Revenue decreased by $261,000 or 11% due to higher discounts granted as part of our strategic efforts to expand and diversify sources of revenue.

Cost of Sales

Cost of sales for the year ended December 31, 2012 was $1.27 million or 28% of revenue, compared to $1.62 million or 36% of revenue in 2011. The favorable reduction in cost of sales as a percentage of revenue in 2012 is primarily attributable to improvements in the manufacturing and supply chain management pertaining to both LSC and LCT.

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 $3.60 million for the year ended December 31, 2012, compared to $4.43 million in 2011. The decrease of approximately $835,000 or 19% in R&D expense is principally due to reductions in stock-based compensation expense of $434,000, consulting expenses of $368,000 associated with various research projects, laboratory supplies and laboratory facility-related expenses of $197,000, personnel-related spending of $137,000, and travel expenses of $25,000. The decrease was partially offset by higher stem cell line research and testing expenses of $323,000.

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 GMP 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 initiation of a non-human primate (NHP) PD study in the fourth quarter of 2012, the release of pre-clinical rodent and NHP PD study data in the first quarter of 2013 and the initiation of a Gunn rat rodent study to look at CNS, a rare but sometimes fatal inherited liver disease.

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, 2012 amounted to $2.07 million, reflecting an increase of approximately $589,000 or 40%, as compared to $1.48 million in 2011. The rise in spending was primarily driven by increases in advertising and marketing expense of approximately $287,000, consulting expense of $244,000, logistics and selling-related expenses of $239,000, e-commerce website support expense of $112,000, employee-related spending of $64,000, and commission paid to various sales consultants of $43,000. The increase was partially offset by a reduction of $272,000 in sales commission paid to a consultant who promoted, marketed, and sold skin care products through various proprietary mailings and a reduction in employee stock-based compensation of $116,000.

Regarding the marketing arrangement with the above mentioned consultant who promoted, marketed, and sold skin care products, prior and up to June 30, 2011, we incurred a 40% marketing fee on net profits generated from these proprietary mailings. In June 30, 2011, we renegotiated and formalized this arrangement in a marketing agreement, which specifies a reduced 20% marketing fee on net revenues generated from these 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, 2012 and 2011, we recorded $149,000 and $430,000, respectively, as marketing expenses related to this agreement.

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2012 were $7.44 million, reflecting a decrease of $916,000 or 11%, compared to $8.36 million in 2011. The decrease was largely attributable to a more streamlined operating cost structure including reductions in stock-based compensation expense of $873,000,

corporate support expenses of $343,000, personnel-related spending resulting from lower headcount of $266,000, and consulting expense of $123,000. The decrease was partially offset by an increase in legal fees of $343,000 pertaining to capital raising and corporate matters, an increase in impairment of intangible assets totaling $187,000, an increase in professional accounting fees and corporate governance expenses of $92,000, and an increase in rent expense of $71,000.

Other Income/Expense

Other expense was $20,000 for the year ended December 31, 2012. In 2011, we recorded other income of $2.18 million reflecting the substantial decrease in the fair value of our warrant liabilities which expired on February 14, 2012.

Liquidity and Capital Resources

Three months ended March 31, 2013 compared with the three months ended March 31, 2012

As of March 31, 2013, our cash and cash equivalents totaled $1.91 million, compared to $654,000 as of December 31, 2012. At March 31, 2013, we had working capital of $2.40 million, compared to $395,000 as of December 31, 2012.

Operating Cash Flows

Net cash used in operating activities was $1.85 million for the three months ended March 31, 2013, compared to $2.03 million for the corresponding period in 2012. The primary factors contributing to the variability in the report cash flow amounts relate to the net loss after non-cash adjustments totaling $1.10 million in the three months ended March 31, 2013, compared to $1.87 million in the same period in 2012. Offsetting this improvement was a reduction in the accounts payable of $539,000 due to the timing of payments to vendors in the quarter ended March 31, 2013.

Investing Cash Flows

Net cash used in investing activities was $168,000 for the three months ended March 31, 2013, compared to $216,000 in the same period in 2012. The decrease resulted from lower payments for patent licenses and trademarks of $4,000 along with lower capital expenditure spending of $44,000.

Financing Cash Flows

Net cash provided by financing activities was $3.27 million for the three months ended March 31, 2013, compared to $6.92 million in the same period in 2012. The net proceeds of $6.92 million received in 2012 were primarily attributable to the issuance of 5 million shares of Series G Preferred Stock for approximately $4.94 million, net of stock issuance costs while the net proceeds of $3.27 received in 2013 were from the issuance of common stock. For further discussion of the common stock issuance, see item 2. Unregistered Sales of Equity Security and Use of Proceeds. For further discussion of the prior period proceeds, see Note 6, Capital Stock, Series G Preferred Stock. In addition, during the three months ended March 31, 2012, we raised $2.09 million from the issuance of 5,000,000 shares of common stock to Aspire Capital Group. In the first quarter of 2012, we paid dividends of $108,000 to our preferred stockholders. No dividend was paid during the three months ended March 31, 2013.

Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

As of December 31, 2012, our cash and cash equivalents totaled $654,000, compared to $1.34 million as of December 31, 2011. Working capital at December 31, 2012, totaled $395,000, compared to $905,000 at December 31, 2011.

Operating Cash Flows

Net cash used in operating activities was $6.69 million for the year ended December 31, 2012, compared to $6.96 million in 2011. The primary factor contributing to the variability in the reported cash flow amounts relates to the lower net loss after non-cash adjustments totaling $6.70 million in 2012, compared to $7.00 million in 2011.

Investing Cash Flows

Net cash used in investing activities was $786,000 for the year ended December 31, 2012, compared to $941,000 in 2011. Patent related spending approximated $596,000 during 2012. In addition, purchases of property and equipment totaling approximately $197,000 in 2012 consisted primarily of laboratory equipment, software, leasehold improvements and computer equipment.

Net cash used in investing activities was $941,000 for the year ended December 31, 2011. Purchases of property and equipment of $565,000 in 2011 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 $376,000 during 2011.

Financing Cash Flows

Net cash provided by financing activities was $6.79 million for the year ended December 31, 2012, compared to $3.46 million in 2011. 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.

Net cash provided by financing activities was $3.46 million for the year ended December 31, 2011. We issued 4.0 million shares of common stock to Aspire Capital Group for approximately $3.36 million. In addition, we raised $532,000 from warrants and options exercised and paid dividends of $430,000 to our preferred stockholders. 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. Accordingly, we reversed all previously accreted and recorded dividends related to Series G Preferred Stock totaling $93,000. Under the Waiver Agreement, the holders of Series D and Series G Preferred Stock are restricted from transferring any shares of Series D or Series G Preferred Stock unless the transferee agrees to be bound by the Waiver Agreement.

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 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 2013 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 lines.

We continue to operate as a development stage entity and as such have accumulated losses from inception and expect to incur additional losses in the near future. We need to raise additional working capital. The timing and degree of any future capital requirements will depend on many factors. Currently our average burn rate is approximately $620,000 per month, excluding capital expenditures and patent costs averaging $60,000. 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 2013. Based on the above, there is substantial doubt about our ability to continue as a going concern. The consolidated financial statements were prepared assuming that we will continue to operate as 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 our cash flow, the proper timing of our capital expenditures, and raising additional capital or financing in the future. In January and March 2013, to obtain funding for working capital purpose, the Company sold 16,325,000 shares of common stock raising $3,289,000.

We do not currently have any obligations for milestone payments under any of our licensed patents other than the minimum royalty payment of $75,000 due 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.

Under our Common Stock Purchase Agreement with Aspire Capital Fund, LLC ("Aspire Capital"), we may sell from time to time up to an aggregate of $25.0 million of shares of common stock through approximately January 2014, subject to specific registration requirements. From commencement through March 31, 2013, we sold a total of 10,533,333 shares of common stock to Aspire Capital for an aggregate of $6,206,000.

Off-Balance Sheet Arrangements

As of March 31, 2013, 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.

Development Stage Company

We are a development stage entity with no revenue generated from our principal operations in therapeutic research and development efforts. To date, we have generated limited and unpredictable incidental revenues to support our core therapeutic 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.

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. 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 are 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 provides 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

There were no new accounting pronouncements during the three months ended March 31, 2013, as compared to the recent accounting pronouncements described in the Annual Report on Form 10-K for the fiscal years ended December 31, 2012 and December 31, 2011 that are of significance, or potential significance, to the Company.

BUSINESS

Business Overview

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

The Company is a development stage entity with no revenue generated from its principal operations in therapeutic research and development efforts. To date, the Company has generated limited and unpredictable incidental revenues to support its core therapeutic research and development efforts.

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 be differentiated into many different cells in the human body. 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. ISCO's collection of hpSCs, known as UniStemCell™, currently consists of fifteen stem cell lines. We have facilities and manufacturing protocols that comply with the requirements of Good Manufacturing Practice (GMP) standards as promulgated by the U.S. Code of Federal Regulations and enforced by the U.S. Food and Drug Administration ("FDA").

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

- Neuronal 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.
- Three-dimensional eye structures to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

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 neuronal 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, with a significant number of those people in India where cultural and other reasons inhibit the donation of corneal tissue. 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. We are currently collaborating with a leading eye hospital in India for pre-clinical and clinical development of a cornea product for the Indian market.

Cosmeceutical Market – Skin Care Products

Anti-aging represents a significant portion of the prestige 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 prestige 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 consumer 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. Lifeline Skin Care has three proprietary products, Defensive Day Serum, Recovery Night Serum and an Eye Firming Complex, all of which include our patented 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 its collection of parthenogenetic stem cell lines by creating and banking new clinical-grade hpSC lines at its Oceanside, California facility. We intend to create these new lines according to good tissue practices ("GTP") and current good manufacturing practices ("GMP") 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. Consequently, the assets and liabilities and the historical operations that are reflected in our financial statements are those of ISC California and its subsidiary. 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.

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 U.S.?

Embryonic stem cell research, in general, is not banned in the U.S. 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, etc. 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 U.S. and around the world. However, since no fertilized human eggs are used in creating our stem cells and no human embryo is being created, used or destroyed, we expect that our parthenogenetic stem cells will be more readily accepted in circumstances where there are ethical concerns with using traditional embryonic stem cells.

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

Our Technology

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

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

Our Facilities

We have built the capacity to manufacture human cells for use in pre-clinical and clinical trials and ultimately for therapeutic use through the completion of our GMP manufacturing laboratories in Oceanside, California and Frederick, Maryland, many of which are currently GMP ready. These laboratories are 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:

- 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.
- Neuronal cells for treatment of Parkinson's disease and potentially other central nervous system disorders, such as traumatic brain injury, stroke and Alzheimer's disease.
- Three-dimensional eye structures to treat degenerative retinal diseases, corneal blindness, and to accelerate corneal healing.

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 research scientists developed three skin care products, including Defensive Day Serum, Recovery Night Serum, and Firming Eye Complex, all using a patented extract derived from human parthenogenic stem cells and

regulated as cosmetics. Defensive Serum contains sunscreen, along with unique stem cell-derived ingredients. The day serum not only protects the skin from the aging effects of harsh light, but it continues to nurture the skin's collagen and fibroblasts to give noticeably firmer, smoother, younger-looking skin. The Recovery Night Serum is a nighttime therapy that complements the Defensive Day Serum. The night serum nurtures the skin's collagen and elastin and contains ingredients to defend against damaging free radicals, to help build firmer, smoother, younger and healthier-looking skin. The Firming Eye Complex contains Vitamin C, hyaluronic acid, and matrixyl 3000 to replenish moisture and supply nutrients to the eye area, along with unique stem-cell derived ingredients that are designed to help firm and tighten the more fragile skin around the eyes, become less vulnerable to premature aging and stimulate collagen production.

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 "pooled" liver cells from many donors appropriate for conducting screening tests on potential drug candidates.
- 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 brand products are currently distributed domestically through LCT's direct sales force and in Europe through CellSystems GmbH. LCT has set up distribution contracts with distributors in Japan, China, South Korea, Taiwan, Malaysia, Singapore and India. In addition, LCT manufactures cell culture products under OEM contracts with American Type Culture Collection ("ATCC") and Millipore Corporation.

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 ("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 neuronal 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, with a significant number of those people in India where cultural and other reasons inhibit the donation of corneal tissue. 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. We are currently collaborating with a leading eye hospital in India for pre-clinical and clinical development of a cornea product for the Indian market.

Skin Care Market

Anti-aging represents a significant portion of the prestige facial skincare market. Despite the recessionary economy, sales of anti-aging products increased in 2011. Because consumers have limited discretionary spending, they are attracted to skincare products that are recommended by a professional whom they know and trust and have increased the frequency of their visits to spas, beauty institutes and doctors' offices.

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 is made up 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 2012 we were granted three patents covering different aspects of our proprietary internally-generated parthenogenetic technology. Two of the 2012 patents, granted in Israel and Russia, cover the process for obtaining human embryonic stem cells using parthenogenetically activated oocytes. We currently have patents

for this technology in the United States, Singapore, and South Africa, with additional patent applications pending in other countries. The third patent, granted in the United States, covers the method for deriving endoderm cells using stem cells. Patent applications covering this technology are also pending outside the United States. We have pending patents covering homozygous parthenogenetic stem cells that can be immune matched to millions of persons and methods for deriving them. Other patents and pending patent applications include intellectual property concerning skin care formulations and methods of manufacturing stem-cell based skin care products, 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 2026.

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. In certain countries in Europe, the European Patent Office currently appears to take the position that hES cells themselves are not patentable. ISCO believes that such restrictions are not appropriate when considering 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 pursuant to

ACT IP or Infigen IP and our obligation to pay minimum annual royalties pursuant to UMass IP has been reduced to $75,000, payable semi-annually 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 2012 and 2011, ISCO spent $3.6 million and $4.4 million on research and development activities, respectively. ISCO actively pursues sponsored research agreements with local and international research organizations and has established research collaborations with: The Scripps Research Institute (La Jolla); the University of Wuerzburg; Wuerzburg Germany; and the Sankara Nethralaya Hospital (Chennai, India). 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. Dr. Jeanne Loring at The Scripps Research Institute is focused on characterizing parthenogenetic stem cells. Dr. Mueller at Wuerzburg University is studying the derivation of human neurons from parthenogenetic stem cells. In addition to the sponsored research agreements and 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 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., Aastrom Biosciences, ReNeuron and ViaCyte. Our primary competitors in the skin care market are Obagi, Skinceuticals, SkinMedica, and Murad. In the field of research products, our primary competitors for stem cells, media and reagents are Lonza, Chemicon, Life Technologies (formerly Invitrogen), StemCell Technologies, Merck (formerly Millipore), BioTime 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 contracts with American Tissue Culture Collection (“ATCC”), Millipore, Life Technology (formerly

Invitrogen) and distribution contracts with our European distributor CellSystems Biotechnologies Vertrieb GmbH. During 2012, approximately 22% of our sales were from two customers. We anticipate increased sales in 2013 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 US 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 (FD&C Act) and the Fair Packaging and Labeling Act ("FPLA") provide the regulatory framework for selling cosmetics. The FD&C Act ensure that the products are not injurious to users under normal conditions of use. The FPLA insures 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 three executive officers, we utilize the services of 41 full-time staff members.

Properties

We have established our primary research facility in 8,215 square feet of leased office and laboratory space in Oceanside, California. Our lease for this facility expires in August 2016. The current base rent is $8,338 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 to $9,018 effective July 1, 2011. 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 $11,306. 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	53
Jay Tibor Novak	Interim Chief Financial Officer	47
John Simon Craw	Executive Vice President of Business Development	50

*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, Interim 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' 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.

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, Vice President of Research and Development and one of our directors. The Governance Committee noted that Dr. Andrey Semechkin has been nominated, as is expected to be elected, by the holders of Series D Preferred Stock.

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.

James H. Berglund became Director in March 2012. He recently retired as a General Partner from Enterprise Partners Venture Capital, which he cofounded in 1985. At Enterprise Partners, Berglund was mainly involved with healthcare and information technology companies. He currently serves on the board of directors of several private companies and manages a private investment portfolio in a wide range of businesses. His current board activity is a continuation of previous work on more than forty for-profit boards of directors and a number of philanthropic and community boards. Dr. Berglund spent the early years of his career in the areas of eye care and eye care products. Prior to Enterprise Partners, Berglund was President and board member of Continuous Curve Contact lenses, Inc., a public San Diego company later acquired by Revlon. Before moving to San Diego, he was President and board member of Central Laboratories, Inc. and subsequently General Manager of the Contact Lens Division of American Optical Corporation after it acquired Central Laboratories. Prior to his involvement in these business activities, Dr. Berglund was in private Optometric practice. He holds a Bachelors of Science degree in Economics, from the University of Wisconsin and a Doctorate in Optometry from Pacific University. He has also served in the United States Army.

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. Since November 2009, he has been serving 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, Vice President of Research and Development, 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. Dr. Ruslan Semechkin was nominated, and is expected to be elected, by the holders of our Series D Preferred Stock.

Director Independence

The Board of Directors has determined that each of Mr. Maier, Mr. Wright, Mr. Casamento and Dr. Berglund 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, 2012 and 2011, who are sometimes referred to herein as our named executive officers.

2012 Summary Compensation Table

Name	Year	Salary(1)	Bonus(2)	Option Awards ($)(3)	All Other Comp.	Total
Andrey Semechkin						
	2012	$ 255,000		$ 176,840		$ 431,840
	2011	$ 255,385		$ 2,833,650		$ 3,089,035
Linh T. Nguyen(4)						
	2012	$ 169,730		$ 39,116		$ 208,846
John S. Craw(4)						
	2012	$ 215,769		$ 51,632		$ 267,401
Ruslan Semechkin						
	2012	$ 176,539		$ 59,354		$ 235,893
	2011	$ 176,539		$ 581,667		$ 758,206
Jeffrey D. Janus(5)						
	2012	$ 234,924		$ —		$ 234,924
	2011	$ 224,999		$ 353,259		$ 578,258

(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 fiscal year ended December 31, 2012.
(4) Ms. Nguyen and Dr. Craw were not named executive officers during 2011, and as such, no 2011 executive compensation data is presented herein. Ms. Nguyen resigned from her position in April 2013.
(5) Effective November 30, 2012, Mr. Janus resigned from his position as the Senior Vice President.

On May 29, 2012 we granted options as follows: Dr. Andrey Semechkin 750,000 shares at an exercise price of $0.32. These options expire on May 29, 2022. All of the shares in this granted 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 29, 2012.

On January 13, 2012 we granted options as follows: Ms. Nguyen 50,000 shares, 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 23, 2012 we granted options as follows: Ms. Nguyen 70,000 shares, Dr. Craw 75,000 shares, and Dr. Ruslan Semechkin 75,000 shares at the exercise price of $0.38. These options expire on June 23, 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 23, 2012.

Effective November 30, 2012, Mr. Jeffrey Janus resigned from his position as our Senior Vice President. On March 9, 2012 we entered into a consulting agreement with Mr. Janus for a term of five years to allow us to continue to access Mr. Janus' historical knowledge and experience following his departure from the Company. Beginning on December 17, 2012, Mr. Janus began providing consulting services to us pursuant to the terms of the consulting agreement. Under the consulting agreement, Mr. Janus agreed to provide up to 10 hours per calendar month of consulting services as may be requested from time to time by our Board or certain officers. As compensation for Mr. Janus' agreement to make himself available for services, we agreed to pay Mr. Janus a fee of $100 per month. In addition, we agreed to pay Mr. Janus $350 per hour for services specifically requested.

Fair Value Assumptions

The following table sets forth the assumptions used in 2012 and 2011 in the calculation of the option awards presented in our "Summary Compensation Table." For all periods presented, the fair value of share-based awards for options awards was estimated at the date of grant using the Black-Scholes valuation model.

	3 Months ended March 2013	Year ended December 2012	Year ended December 2011
Significant assumptions (weighted-average):			
Risk-free interest rate at grant date	0.94%	0.94%	1.81%
Expected stock price volatility	121.00%	121.90%	81%
Expected dividend payout	0%	0%	0%
Expected option life-years based on management's estimate	5.70 years	5.69 years	6.13 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, 2012:

Outstanding Equity Awards at December 31, 2012

Name	Year Option Granted	Number of Securities Underlying Unexercised Options	Equity Incentive Plan Awards Number of Securities Underlying Unexercised Unearned Options	Option Exercise Price	Option Expiration Date
Andrey Semechkin					
	2009(2)	23,000	6,000	$ 0.49	2019
	2009(4)	770,000	490,000	$ 0.59	2019
	2011(5)	1,150,000	1,350,000	$ 1.93	2021
	2012(12)	105,000	645,000	$ 0.32	2022
Linh T. Nguyen					
	2011(8)	28,000	72,000	$ 0.66	2021
	2012(10)	11,000	39,000	$ 0.49	2022
	2012(11)	8,400	61,600	$ 0.38	2022
John S. Craw					
	2010(7)	340,000	160,000	$ 1.58	2020
	2011(5)	138,000	162,000	$ 1.93	2021
	2011(9)	38,000	62,000	$ 1.10	2021
	2012(10)	17,600	62,400	$ 0.49	2022
	2012(11)	9,000	66,000	$ 0.38	2022
Ruslan Semechkin					
	2008(6)	49,000	1,000	$ 0.22	2018
	2009(4)	180,000	70,000	$ 0.59	2019
	2011(5)	230,000	270,000	$ 1.93	2021
	2012(10)	22,000	78,000	$ 0.49	2022
	2012(11)	9,000	66,000	$ 0.38	2022
Jeffrey D. Janus					
	2006(1)	150,000	—	$ 1.00	2016
	2006(1)	100,000	—	$ 1.00	2016
	2008(1)	300,000	—	$ 0.45	2018
	2009(3)	740,000	260,000	$ 0.62	2019
	2011(5)	138,000	162,000	$ 1.93	2021

(1) There were no unvested stock awards as of December 31, 2011.

(2) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on January 1, 2007

(3) The stock option vested on December 1, 2006.

(4) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on May 22, 2008.

(5) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on December 4, 2009.

(6) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on February 13, 2011.

(7) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on May 29, 2009.

(8) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on January 10, 2010.

(9) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on December 12, 2008.

(10) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on February 13, 2012.

(11) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on July 23, 2012.

(12) The stock option vested as to 1/50th of the shares subject to the stock option on each month commencing on June 29, 2012.

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, 2012.

2012 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	Fees Earned or Paid in Cash(1)	Restricted Stock Awards(2)	Total
Donald A. Wright	$ 77,500	$ 20,800	$ 98,300
Paul V. Maier	$ 62,919	$ 12,800	$ 75,719
Charles J. Casamento	$ 71,252	$ 12,800	$ 84,052
James H. Berglund	$ 51,629	$ 12,800	$ 64,429

(1) Up to May 2012, Mr. Wright, Mr. Maier and Mr. Casamento were compensated for their service on the Board and for service on any committee of the Board at the annual rate of $60,000, and Mr. Casamento was compensated for serving as Chairman of the Pharmaceutical Business Development Committee at an annual retainer rate of $20,000. Beginning in June of 2012, the rate of annual compensation for Mr. Wright, Mr. Maier, Mr. Casamento and Mr. Berglund was changed to $65,000; while Mr. Wright receives an additional annual compensation of $25,000 for serving as the Co-Chairman of the Board.

(2) On May 29, 2012 Mr. Maier, Mr. Casamento, Mr. Berglund and Mr. Wright each received 40,000 restricted shares in connection with their service on the Board. Mr. Wright received an additional 25,000 restricted shares in connection with his service as the Co-Chairman of on the Board of Directors. The restricted shares granted are vesting at the earlier of twelve months from grant date or the 2013 Annual Meeting of Stockholders. The restricted stock award amount represents the grant date fair value of the Company's stock.

In January 2013, the Board revised the compensation program for non-employee directors. For 2013, 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 2014 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 March 31, 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 year 2012 and 2011, the Company recorded $113,000 and $106,000 in rent expense related to the facility lease arrangement with related parties.

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

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding the beneficial ownership of our common stock and our preferred stock as of May 31, 2013, 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 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 May 31, 2013 there were a total of 5,300,043 shares of preferred stock outstanding that were convertible into a total of 36,403,812 shares of common stock. Dr. Andrey Semechkin and Dr. Ruslan Semechkin, either directly or through entities that they control, beneficially own a total of 5,000,043 shares of preferred stock, that could be converted into a total of 34,903,812 shares of common stock. As such, Dr. Andrey Semechkin and Dr. Ruslan Semechkin control approximately 95.9% 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 May 31, 2013 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)(5)(6)	64,091,309	41.11%
Linh Nguyen(2)(3)	63,600*	
Jay Novak(2)(3)	37,900*	
John Craw(2)(3)	897,800*	
Ruslan Semechkin(2)(3)(5)(6)	64,091,309	41.11%
Jeffrey Janus(2)(3)	3,438,337	3.02%
Paul Maier(2)(3)	502,500*	
Donald Wright(2)(3)	587,500*	
Charles Casamento(2)(3)	352,500*	
James Berglund(2)	352,500*	
All Executive Officers and Directors as a Group (9 Persons)	66,822,009	43.49%
5% Holders		
X-Master, Inc.(5)	13,000,000	11.07%
Kenneth Aldrich(4)	9,050,000	7.58%

* less than 1%

(1) Based on 112,391,815 shares currently outstanding plus shares issuable under derivative securities which are exercisable within 60 days of May 31, 2013.

(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 May 31, 2013 in the following amounts:

Dr. Andrey Semechkin, 43,527,879 shares; Ms. Nguyen, 63,600 shares; Mr. Novak 37,900 shares; Mr. Craw, 752,800 shares; Dr. Ruslan Semechkin, 43,527,879 shares; Mr. Janus, 1,610,000 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, 45,088,579 shares.

(4) Included shares issuance upon exercise of options to purchase shares of our common stock exercisable within 60 days of May 31, 2013 for 5,650,000 shares. Mr. Aldrich's shares are held, in part, through YKA Partners, a California limited partnership. Mr. Aldrich is the investment manager of YKA Partners and controls the disposition of these shares. The business address for Mr. Aldrich and YKA Partners is 157 Surfview Drive, Pacific Palisades, CA 90272.

(5) 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.

(6) 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.

DESCRIPTION OF CAPITAL STOCK

The following summary describes the material terms of our currently outstanding shares of capital stock. It summarizes material provisions of our certificate of incorporation and by-laws.

General

Our certificate of incorporation authorizes us to issue 320,000,000 shares of capital stock, $0.001 par value per share, of which 300,000,000 shares are designated common stock and 20,000,000 shares are designated preferred

stock. As of May 31, 2013, there were issued and outstanding 112,391,815 shares of common stock, warrants to purchase 9,462,500 shares of common stock, 300,000 shares of Series B preferred stock, 43 shares of Series D preferred stock and 5,000,000 shares of Series G 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 and Series G 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 five 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 whereby, (subject to the exceptions) if the Company issues equity securities or securities convertible into equity at a price below the current conversion price of the Series B preferred stock of $0.20 per share, the conversion price shall be adjusted downward to equal the price of the new securities.

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, Vice President of International Stem Cell 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. During the years ended December 31, 2012 and 2011, dividends of $237,000 and $429,000 were paid to the holders, respectively.

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 $0.20 per share. On December 4, 2012, the holders of all of the outstanding shares of Series D preferred stock executed a Waiver of Anti-Dilution Rights (the "Anti-Dilution Waiver") pursuant to which such holders waived all anti-dilution adjustment rights for the Series D preferred stock in connection with the offering of securities pursuant to the registration statement of which this prospectus is a part, including the shares issuable on exercise of all warrants registered hereunder. 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 stock.

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, Vice President of International Stem Cell and a director.

The Series G preferred stock were 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 $0.37, and the conversion ratio is 2.67 shares of common stock for every share of Series G preferred stock. We believe the offering contemplated by this prospectus will result in another anti-dilution adjustment to the conversion price of the Series G preferred stock. Assuming the sale of 17,500,000 units at an assumed public offering price of $.20 per unit (80% of the

closing bid price of our common stock on June 27, 2013), the current conversion price of the Series G preferred stock of $0.37 and the current conversion ratio of 2.67 shares of common stock for every share of Series G preferred stock would not change. Assuming that the offering price is reduced to approximately $0.17 per unit and we sell 21,000,000 units to obtain the same expected net proceeds, the current conversion price of the Series G preferred stock of $0.37 would adjust to $0.31 and the current conversion ratio of 2.67 shares of common stock for every share of Series G preferred stock would adjust to 3.26.

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.

Transfer Agent

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

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering units, each unit consisting of one share of our common stock and one Series A Warrant to purchase one share of our common stock. We are also offering Series B Warrants, each to purchase one unit. Investors will receive one Series B Warrant for each unit purchased by them in this offering.

The units will not be issued or certificated. The shares of common stock, Series A Warrants and Series B Warrants that we are issuing are immediately separable and will be issued separately. The shares of common stock issuable from time to time upon exercise of the Series A Warrants and Series B Warrants, if any, are also being offered pursuant to this prospectus.

Common Stock
Holders of our common stock have the rights set forth above under the heading "Description of Capital Stock-Common Stock."

Series A Warrants

The following summary of certain terms and provisions of Series A Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of the Series A Warrant, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of Series A Warrant for a complete description of the terms and conditions of the Series A Warrants.

Duration and Exercise Price. The Series A Warrants offered hereby will entitle the holders thereof to purchase up to an aggregate of 17,500,000 shares of our common stock at an initial exercise price of $ per share, commencing immediately on the date of issuance and will expire on the fifth anniversary of the initial date of issuance. The Series A Warrants will be issued separately from the common stock included in the units, and may be transferred separately immediately thereafter. If the Series B Warrants described below are exercised in full, we will issue additional Series A Warrants to purchase up to an aggregate of 17,500,000 shares of our common stock. All Series A Warrants will have the same expiration date.

Anti-Dilution Protection. The Series A Warrants 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 terms of the Series A Warrants, including these anti-dilution protections, may make it difficult for us to raise additional capital at prevailing market terms in the future.

Cashless Exercise. If, at the time a holder exercises its Series A Warrant, there is no effective registration statement registering, or the prospectus contained therein is not available for an issuance of the shares underlying the Series A Warrant to the holder then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series A Warrant.

Fundamental Transactions. In the event of any fundamental transaction, as described in the Series A Warrants and generally including any merger with another entity, the sale, transfer or other disposition of all or substantially all of our assets to another entity, or the acquisition by a person of more than 50% of our common stock (other than additional non-control investments by Andrey Semechkin, Ruslan Semechkin and/or their affiliates), then the holders of the Series A Warrants will thereafter have the right to receive upon exercise of the Series A Warrants such shares of stock, securities or assets as would have been issuable or payable with respect to or in exchange for a number of shares of our common stock equal to the number of shares of our common stock issuable upon exercise of the Series A Warrants immediately prior to the fundamental transaction, had the fundamental transaction not taken place, and appropriate provision will be made so that the provisions of the Series A Warrants (including, for example, provisions relating to the adjustment of the exercise price) will thereafter be applicable, as nearly equivalent as may be practicable in relation to any share of stock, securities or assets deliverable upon the exercise of the Series A Warrants after the fundamental transaction. In lieu of the right to receive upon exercise the shares of stock, securities or assets as would have been issuable or payable with respect to or in exchange for a number of shares of our common stock, the holders of the Series A Warrants may require us under certain circumstances to redeem the Series A Warrant for a purchase price payable in cash of the Black-Scholes value of the Series A Warrant, as calculated pursuant to the terms of the Series A Warrant.

Transferability. The Series A Warrants may be transferred at the option of the Series A Warrant holder upon surrender of the Series A Warrants with the appropriate instruments of transfer.

Exchange Listing. We do not plan on making an application to list the Series A Warrants on any national securities exchange or other nationally recognized trading system.

Right as a Stockholder. Except by virtue of a holder's ownership of shares of our common stock, the holders of the Series A Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Series A Warrants.

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

Waivers and Amendments. Subject to certain exceptions, any term of the Series A Warrants may be amended or waived with our written consent and the written consent of the holders of at least 66 2/3% of the then-outstanding Series A Warrants.

Series B Warrants

The following summary of certain terms and provisions of the Series B Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of the Series B Warrant, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the Series B Warrant for a complete description of the terms and conditions of the Series B Warrants.

Duration and Exercise Price. The Series B Warrants offered hereby entitle the holders thereof to purchase up to an aggregate of 17,500,000 additional units. The Series B Warrants are exercisable immediately at an initial exercise price of $ per unit, subject to adjustment. Beginning at the close of trading on the 60th trading day following the date of issuance, and effective beginning on the third trading day immediately preceding such 60th trading day, the Series B Warrants will be 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 our common stock on such 60th trading day. If prior to the close of trading on the 60th trading day after the date of issuance (or on any of the three trading days immediately preceding such day), a holder of the Series B Warrants has delivered one or more exercise notices to us 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 we shall 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 our common stock on such 60th trading day. The Series B Warrants will expire at the close of business on the 65th trading day following the date of issuance.

The Series B Warrants will be issued separately from the common stock and the Series A Warrants included in the units, and may be transferred separately immediately thereafter. Series B Warrants will be issued in certificated form only. Purchasers in this offering will receive one Series B Warrant for each unit purchased by them in this offering. No additional consideration will be payable by investors for the Series B.

Exercisability. The Series B Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice that is accompanied by payment in full for the number of units purchased upon such exercise (except in the case of a cashless exercise as discussed below). With certain limited exceptions involving the exercise of Series B Warrants in connection with a fundamental transaction in which

our company is acquired by a third party, a holder (together with its affiliates) may not exercise any portion of the Series B Warrants to the extent that, after giving effect to the shares of common stock issuable upon exercise of the Series B Warrants and the shares of common stock issuable upon exercise of the Series A Warrants underlying such Series B Warrants, the holder would own more than 9.99% of the outstanding common stock after exercise, as such percentage ownership is determined in accordance with the terms of the warrants.

Transferability. The Series B Warrants may be transferred at the option of the Series B Warrant holder upon surrender of the Series B Warrants with the appropriate instruments of transfer.

Exchange Listing. We do not plan on making an application to list the Series B Warrants on any national securities exchange or other nationally recognized trading system.

Fundamental Transactions. In the event of any fundamental transaction, as described in the Series B Warrants and generally including any merger with another entity, the sale, transfer or other disposition of all or substantially all of our assets to another entity, or the acquisition by a person of more than 50% of our common stock (other than additional non-control investments by Andrey Semechkin, Ruslan Semechkin and/or their affiliates), then the holders of the Series B Warrants will thereafter have the right to receive upon exercise of the Series B Warrants such shares of stock, securities or assets as would have been issuable or payable with respect to or in exchange for a number of shares of our common stock equal to the number of shares of our common stock issuable upon exercise of the Series B Warrants immediately prior to the fundamental transaction, had the fundamental transaction not taken place, and appropriate provision will be made so that the provisions of the Series B Warrants (including, for example, provisions relating to the adjustment of the exercise price) will thereafter be applicable, as nearly equivalent as may practicable in relation to any share of stock, securities or assets deliverable upon the exercise of the Series B Warrants after the fundamental transaction.

Rights as a Stockholder. Except by virtue of a holder's ownership of shares of our common stock, the holders of the Series B Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Series B Warrants.

Waivers and Amendments. Subject to certain exceptions, any term of the Series B Warrants may be amended or waived with our written consent and the written consent of the holders of at least 66 2/3% of the then-outstanding Series B Warrants.

PLAN OF DISTRIBUTION

Roth Capital Partners, LLC, which we refer to as the placement agent, has agreed to act as the exclusive placement agent in connection with this offering subject to the terms and conditions of a placement agent agreement, dated , 2013. The placement agent may engage selected dealers to assist in the placement of the units. The placement agent is not purchasing or selling any units offered by this prospectus, nor is it required to arrange the purchase or sale of any specific number or dollar amount of the units, but has agreed to use its commercially reasonable "best efforts" to arrange for the sale of all of the units offered hereby. We will enter into subscription agreements directly with investors in connection with this offering and we may not sell the entire amount of units offered pursuant to this prospectus. The price per unit has been determined based upon arm's-length negotiations between the purchasers and us.

The placement agent proposes to arrange for the sale to one or more purchasers of the units offered pursuant to this prospectus through direct subscription agreements between the purchasers and us.

Commissions and Expenses

We have agreed to pay the placement agent an aggregate cash placement fee equal to seven percent of the gross proceeds in this offering, excluding any proceeds from our officers, directors or their affiliates.

The following table shows the per unit and total cash placement agent's fees we will pay to the placement agent in connection with the sale of the units offered pursuant to this prospectus assuming the purchase of all of the units offered hereby:

Per Unit	$
Total	$

In addition, we have agreed to issue to the placement agent, or its designees, warrants exercisable for an aggregate of five percent of the units issued in this offering, excluding any units sold to our officers, directors or their affiliates. The placement agent warrants will be exercisable at any time beginning on the date that is six months from the date hereof until 5:00 p.m. (New York time) on the date that is five years following the date hereof at an exercise price of $ per unit. This prospectus also covers the sale of the placement agent warrants, the shares of our common stock and Series A warrants issuable upon the exercise of the placement agent warrants, and the shares of our common stock issuable upon the exercise of the Series A warrants issuable upon the exercise of the placement agent warrants. The placement agent warrants will be substantially on the same terms as the Series B Warrants offered hereby, except that the placement agent warrants will (i) have an exercise price of $ per unit, subject to adjustments similar to those applicable to the Series A Warrants, (ii) have a term of five years, (iii) provide a cashless exercise, and (iv) will otherwise comply with the requirements of the Financial Institutions Regulatory Authority, Inc., or FINRA. As required by FINRA, neither the placement agent warrants nor any securities issued upon exercise of the placement agent warrants may be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of such securities by any person for a period of 180 days immediately following the date hereof, except the transfer of any security:

- by operation of law or by reason of our reorganization;
- to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period;
- if the aggregate amount of our securities held by the placement agent or related person do not exceed 1% of the securities being offered;
- that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or
- the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

We also have engaged the placement agent to act as our exclusive agent for the solicitation of exercises of the Series B Warrants. In such capacity, the placement agent will contact record and beneficial owners of the Series B Warrants, solicit such holders to exercise their Series B Warrants, assist such holders in effecting the exercise of their Series B Warrants and respond to appropriate questions and requests for assistance from such holders. We have agreed to pay the placement agent a cash solicitation fee of seven percent of the exercise price of the Series B Warrants exercised as a result of their solicitation services. As required by FINRA Rule 5110(f)(2)(K), no solicitation fee will be payable to the underwriters with respect to the exercise of a Series B Warrant if:

- the market price of the underlying shares of Common Stock is lower than the exercise price of the Series B Warrant at the time of exercise;
- the Series B Warrant is held in a discretionary account of the placement agent at the time of exercise, unless prior specific written approval for the exercise is received from the holder;
- the arrangement to pay the solicitation fee is not disclosed in any prospectus provided to the holder of the Series B Warrant at the time of exercise;

- the Series B Warrant is exercised in an unsolicited transaction; or

- the holder of the Series B Warrant has not confirmed in writing that exercise was solicited by the placement agent.

The maximum total cash placement agent's fee and cash solicitation fee payable to the underwriters will not exceed a maximum of $490,000, assuming the offering of 17,500,000 units at a public offering price of $0.20 per unit (80% of the closing bid price of our common stock on June 27, 2013) and assuming the full exercise of the Series B Warrants. In the event that not all of the Series B warrants are exercised or the exercise price of the Series B Warrants is less than the public offering price per unit set forth on the cover page of this prospectus, the total cash placement agent's fee and solicitation fee payable to the placement agent would be reduced.

Because there is no minimum offering amount required as a condition to closing in this offering, the actual total offering commissions, if any, are not presently determinable and may be substantially less than the maximum amount set forth above. We have also agreed to reimburse the placement agent for its out-of-pocket expenses in an aggregate amount not to exceed $75,000.

Our obligation to issue and sell units to the purchasers is subject to the conditions set forth in the subscription agreements, which may be waived by us at our discretion. A purchaser's obligation to purchase units is subject to the conditions set forth in his or her subscription agreement as well, which may also be waived.

We currently anticipate that the sale of the units will be completed on or about July 12, 2013. We estimate the total offering expenses of this offering that will be payable by us, excluding the placement agent's fee, will be approximately $330,000, which includes legal and printing costs, various other fees and reimbursement of the placements agent's expenses. At the closing, The Depository Trust Company will credit the shares of common stock to the respective accounts of the investors. We will mail warrants directly to the investors at the respective addresses set forth in their subscription agreement with us.

Indemnification

We have agreed to indemnify the placement agent against liabilities under the Securities Act of 1933, as amended. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

Lock-up Agreements

We and our officers, directors and certain of our stockholders have agreed, subject to certain exceptions, for a period of 30 days after the date of this prospectus, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any common shares or any securities convertible into or exchangeable for our common shares either owned as of the date hereof or thereafter acquired (in our case only at a price less than the public offering price set forth on the cover page of this prospectus) without the prior written consent of the placement agent. This 30-day period may be extended if (1) during the last 17 days of the 30-day period, we issue an earnings release or material news or a material event regarding us occurs or (2) prior to the expiration of the 30-day period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 30-day period, then the period of such extension will be 18-days, beginning on the issuance of the earnings release or the occurrence of the material news or material event. If after any announcement described in clause (2) of the preceding sentence, we announce that we will not release earnings results during the 16-day period, the lock-up period shall expire the later of the expiration of the 30-day period and the end of any extension of such period made pursuant to clause (1) of the preceding sentence. The placement agent may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Electronic Distribution

This prospectus may be made available in electronic format on websites or through other online services maintained by the placement agent, or by an affiliate. Other than this prospectus in electronic format, the information on the placement agent's website and any information contained in any other website maintained by the placement agent is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the placement agent, and should not be relied upon by investors.

The foregoing does not purport to be a complete statement of the terms and conditions of the placement agent agreement and subscription agreements. A copy of the placement agent agreement and the form of subscription agreement with the investors are included as exhibits to the registration statement of which this prospectus supplement forms a part. See "Where You Can Find More Information" on page 56.

Regulation M Restrictions

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the units sold by it while acting as a principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of units by the placement agent acting as a principal. Under these rules and regulations, the placement agent:

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

Other

From time to time, the placement agent and its affiliates have provided, and may in the future provide, various investment banking, financial advisory and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees. In the course of their businesses, the placement agent and its affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the placement agent and its affiliates may at any time hold long or short positions in such securities or loans. Except for services provided in connection with this offering, the placement agent has not provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus and we do not expect to retain the placement agent to perform any investment banking or other financial services for at least 90 days after the date of this prospectus.

NOTICE TO INVESTORS

Notice to Investors in the United Kingdom

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any securities which are the subject of the offering contemplated by this prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any such securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

(c) by the underwriter to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive); or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of these securities shall result in a requirement for the publication by the issuer or the underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any of the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any such securities to be offered so as to enable an investor to decide to purchase any such securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The placement agent has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of any of the securities in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and

(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

European Economic Area

In particular, this document does not constitute an approved prospectus in accordance with European Commission's Regulation on Prospectuses no. 809/2004 and no such prospectus is to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (being the Directive of the European Parliament and of the Council 2003/71/EC and including any relevant implementing measure in each Relevant Member State) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to such securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of securities to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000; and (3) an annual net turnover of more than €50,000,000, as shown in the last annual or consolidated accounts; or
- in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of securities to the public" in relation to any of the securities in any Relevant Member State means the communication in any form and by any means of sufficient

information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State. For these purposes the units offered hereby are "securities."

LEGAL MATTERS

The validity of the issuance of securities offered by this prospectus will be passed upon for us by DLA Piper LLP (US), San Diego, California. Lowenstein Sandler LLP, New York, New York, has represented the placement agent in connection with this offering.

EXPERTS

The consolidated balance sheets of International Stem Cell Corporation and Subsidiaries as of December 31, 2012 and 2011, and the related consolidated statements of operations, changes in redeemable convertible preferred stock, members' deficit and stockholders' equity (deficit) and cash flows for the years then ended and for the period from inception (August 17, 2001) through December 31, 2012 have been incorporated herein and in the registration statement in reliance upon the reports of Mayer Hoffman McCann P.C. and Vasquez & Company LLP, independent registered public accounting firms, incorporated herein, and given upon the authority of said firms as experts in accounting and auditing.

On October 17, 2012, December 4, 2012, May 6, 2013 and June 19, 2013 and July 1, 2013, we entered into a letter agreement with Vasquez & Company LLP, our former independent registered public accounting firm. Pursuant to this letter agreement, except for liability resulting from malpractice, gross negligence, willful misconduct or challenges from the Public Company Accounting Oversight Board or SEC, we agreed to indemnify Vasquez & Company, LLP for all liability incurred in connection with any lawsuit brought against it because of its consent to the inclusion of its report on its audit of our 2010 financial statements, as restated, in this registration statement.

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
(A Development Stage Company)

Three months ended March 31, 2013 and 2012 (unaudited)

Years Ended December 31, 2012 and 2011

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Condensed Consolidated Balance Sheets
(in thousands, except share data)
(Unaudited)

	March 31, 2013	December 31, 2012
Assets		
Cash and cash equivalents	$ 1,912	$ 654
Accounts receivable, net of allowance for doubtful accounts of $18 and $4 at March 31, 2013 and December 31, 2012, respectively	384	273
Inventory, net	1,206	1,199
Prepaid expenses and other current assets	492	456
Total current assets	3,994	2,582
Property and equipment, net	1,033	1,134
Intangible assets, net	1,768	1,634
Deposits and other assets	20	20
Total assets	$ 6,815	$ 5,370
Liabilities, Redeemable Preferred Stock and Stockholders' Equity (Deficit)		
Accounts payable	$ 430	$ 969
Accrued liabilities	746	730
Deferred revenue	163	233
Related party payable	5	5
Advances	250	250
Total current liabilities	1,594	2,187
Convertible Redeemable Series G Preferred stock, $0.001 par value, 5,000,000 shares were authorized, issued and outstanding at March 31, 2013 and December 31, 2012, liquidation preferences of $5,000 at March 31, 2013 and December 31, 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 March 31, 2013 and December 31, 2012, liquidation preferences of $4,320 at March 31, 2013 and December 31, 2012	—	—
Series B Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding at March 31, 2013 and December 31, 2012, liquidation preferences of $389 and $385 at March 31, 2013 and December 31, 2012, respectively	—	—
Series C Preferred stock, $0.001 par value, 3,000,000 shares authorized, 0 and 2,000,000 issued and outstanding at March 31, 2013 and December 31, 2012, respectively, liquidation preferences of $0 and $2,507 at March 31, 2013 and December 31, 2012, respectively	—	2
Common stock, $0.001 par value, 300,000,000 shares authorized, 112,363,815 and 87,388,815 issued and outstanding at March 31, 2013 and December 31, 2012, respectively	112	87
Additional paid-in capital	73,672	69,945
Deficit accumulated during the development stage	(73,504)	(71,792)
Total stockholders' equity (deficit)	280	(1,758)

Total liabilities, redeemable preferred stock and stockholders' equity (deficit)	$ 6,815	$ 5,370

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Three Months Ended March 31,		Inception (August 17, 2001) through March 31, 2013
	2013	2012	
Revenues			
Product sales	$ 1,285	$ 1,077	$ 13,483
Royalties and license	—	—	135
Total revenue	1,285	1,077	13,618
Development expenses			
Cost of sales	334	324	4,940
Research and development	721	937	22,614
Selling and marketing	511	496	6,450
General and administrative	1,419	2,039	40,547
Total development expenses	2,985	3,796	74,551
Loss from development activities	(1,700)	(2,719)	(60,933)
Other income (expense)			
Settlement with related company	—	—	(93)
Miscellaneous income (expense)	(15)	1	(260)
Dividend income	—	—	94
Interest expense	—	—	(2,225)
Sublease income	3	3	319
Change in market value of warrants	—	38	(1,357)
Total other income (expense), net	(12)	42	(3,522)
Loss before income taxes	(1,712)	(2,677)	(64,455)
Provision for income taxes	—	—	7
Net loss	$ (1,712)	$ (2,677)	$ (64,462)
Deemed dividend on preferred stock	—	(1,375)	(1,375)
Dividend on preferred stock	—	(82)	(8,097)
Net loss applicable to common stockholders	$ (1,712)	$ (4,134)	$ (73,934)
Net loss per common share-basic and diluted	$ (0.02)	$ (0.05)	$ n/a
Weighted average shares-basic and diluted	103,566	82,485	n/a

See accompanying notes to the unaudited condensed consolidated financial statements.

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International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to March 31, 2013
(in thousands)
(Unaudited)

	Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock Issued												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F						
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance at August 17, 2001	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —	$ —	$ —
Members contribution																					100
Net loss for the period from inception																					(141)
Balance at December 31, 2001																					(41)
Members contributions																					250
Net loss for the year ended																					(391)
Balance at December 31, 2002																					(182)
Members contributions																					195
Net loss for the year ended																					(519)
Balance at December 31, 2003																					(506)
Members contribution																					1,110
Net loss for the year ended																					(854)
Activity through December 31, 2004																					(250)
Members contributions																					780
Net loss for the year ended December 31, 2005																					(1,386)
Balance at December 31, 2005																					(856)
Members contribution																					250
Effect of the Reorganization Transactions			20,000	20															2,665	(3,291)	(606)	606
BTHC transactions			2,210	2															(2)		—	
Offering costs																			(2,778)		(2,778)	
Warrants issued for equity placement services																			1,231		1,231	

Warrants issued for services					222		222
Warrants issued with promissory note					638		638
Common stock issued for services	1,350	1			1,349		1,350
Issuance of common stock	10,437	11			10,371		10,382
Stock-based compensation					842		842
Net loss for the year ended December 31, 2006						(6,584)	(6,584)

See accompanying notes to the unaudited condensed consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to March 31, 2013
(in thousands)
(Unaudited)

	Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock Issued												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
Balance at December 31, 2006			33,997	$ 34	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$14,538	$ (9,875)	$ 4,697	$ —
Offering costs																			$ (382)		$ (382)	
Warrants issued for equity placement services																			169		169	
Issuance of common stock			1,370	$ 1															1,369		1,370	
Warrants exercised			3	—															3		3	
Stock-based compensation																			427		427	
Net loss for the year ended December 31, 2007																				(6,072)	(6,072)	
Balance at December 31, 2007			35,370	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,124	(15,947)	212	—
Issuance of Preferred Stock					1,000	1	550	1	2,000	2	—	—							4,546		4,550	
Warrants issued and beneficial conversion feature																			911		911	
Issuance of Common Stock for services			3,041	3															593		596	
Stock-based compensation																			735		735	
Deemed Dividend																			1,582	(1,582)	—	
Net loss for the year ended December 31, 2008																				(6,571)	(6,571)	
Balance at December 31, 2008			38,411	38	1,000	1	550	1	2,000	2	—	—	—	—	—	—	—	—	24,491	(24,100)	433	—
Issuance of Preferred Stock											—	—							3,682		3,682	
Preferred Stock Subscription																					—	
Issuance of Common Stock																					—	
For services			1,208	1															941		942	
From conversion of preferred stock			3,727	4	(400)	—	(150)	(1)			—	—							(3)		—	
From conversion of debt			2,000	2															498		500	

From exercise of warrants	4,392	4	(2,700)	3,659		963
From cashless exercise of warrants	3,510	4		279		283
For cash	2,787	3		1,397		1,400
Stock-based compensation				410		410
Warrants issued for services				281		281
Options issued for services				106		106
Deemed Dividend				3,163	(4,032)	(869)
Cumulative effect adjustment-warrant liabilities				(1,704)	430	(1,274)
Equity placement shares				(250)		(250)
Dividend on preferred stock					(364)	(364)
Net loss for the year ended December 31, 2009			(9)		(8,504)	(8,513)

See accompanying notes to the unaudited condensed consolidated financial statements

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to March 31, 2013
(in thousands)
(Unaudited)

	Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock Issued												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
Balance at December 31, 2009			56,035	$ 56	600	$ 1	400	$ —	2,000	$ 2	—	$ —	—	$ —	—	$ —	$ (2,709)	$ —	$36,950	$(36,570)	$ (2,270)	$ —
Preferred Stock Subscription													—	—	1	0					0	
Issuance of Common Stock																					—	
For services			749	$ 1															$ 1,084		$ 1,085	
From conversion of preferred stock and options			800	1	(100)	—	(100)	—					—	—	(1)	—			(1)		—	
From conversion of debt																					—	
From exercise of warrants			5,063	5													(3,254)	(5)	4,747		1,493	
From cashless exercise of warrants and options			1,531	2															1,536		1,538	
For cash			10,593	10															10,181		10,190	
Stock-based compensation																			2,068		2,068	
Warrants issued for services																					—	
Options issued for services																					—	
Warrants reclassified to equity																			805		805	
Deemed dividend on preferred stock																				(1,037)	(1,037)	
Accrued and paid dividend on preferred stock																				(524)	(524)	
Swap notes Receivable and Perpetual Preferred Stock																	5,963		(1,200)		4,763	
Net loss for the year ended December 31, 2010																				(12,723)	(12,723)	
Balance at December 31, 2010			74,771	75	500	1	300	—	2,000	2	—	—	—	—	—	0	—	(5)	56,170	(50,854)	5,389	—
Issuance of common stock																						
For services			150	—															303		303	
From cashless																						

exercise of warrants			55	—															26		26			
From exercise of options and warrants			1,060	1															526		527			
For cash			4,000	4															3,354		3,358			
Stock-based compensation																			3,541		3,541			
Warrants issued for services																			75		75			
Stock subscription																			5		5			
Accrued dividend on preferred stock																				(430)	(430)			
Net loss for the year ended December 31, 2011																				(9,171)	(9,171)			
Balance at December 31, 2011			80,036	$ 80	500	$ 1	300	$ —	2,000	$ 2	—	$ —	—	$ —	—	$ 0	$ —	$ —	$63,995	$(60,455)	$ 3,623	$ —		

See accompanying notes to the unaudited condensed consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to March 31, 2013
(in thousands)
(Unaudited)

	Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock Issued												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
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 period 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)	$ —

See accompanying notes to the unaudited condensed consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to March 31, 2013
(in thousands)
(Unaudited)

	Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock Issued												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
Issuance of common stock from conversion of Series C preferred stock			8,000	8					(2,000)	(2)									(6)		—	
Issuance of common stock																						
For cash			16,325	16															3,257		3,273	
For services			650	1															67		68	
Stock-based compensation																			409		409	
Net loss for the quarter ended March 31, 2013																				(1,712)	(1,712)	
Balance at March 31, 2013	5,000	$ 4,941	112,364	$ 112	—	$ —	300	$ —	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ 73,672	$ (73,504)	$ 280	$ —

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Three Months Ended March 31,		Inception (August 17, 2001) through March 31, 2013
	2013	2012	
Cash flows from operating activities			
Net loss	$ (1,712)	$ (2,677)	$ (64,462)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	116	125	2,032
Accretion of discount on notes payable	—	—	103
Accretion of discount on bridge loans	—	—	638
Warrants issued for services	—	36	370
Non-cash compensation expense	409	685	11,180
Common stock issued for services	68	—	4,424
Change in market value of warrants	—	(38)	1,357
Amortization of discount on convertible debt	—	—	1,081
Allowance for inventory obsolescence	4	(15)	39
Interest on perpetual preferred stock notes receivable	—	—	(35)
Loss on disposal of fixed assets	—	—	80
Impairment of intangible assets	19	18	212
Changes in operating assets and liabilities:			
(Increase) decrease in accounts receivable	(111)	(117)	(384)
(Increase) decrease in inventory	(11)	55	(1,246)
(Increase) decrease in prepaid assets and other assets	(36)	(23)	(492)
(Increase) decrease in deposits			(20)
Increase (decrease) in accounts payable	(539)	(58)	538
Increase (decrease) in accrued expenses	16	61	1,032
Increase (decrease) in deferred revenue	(70)	(77)	163
Increase (decrease) in related party payable	—	—	(160)
Net cash used in operating activities	(1,847)	(2,025)	(43,550)
Investing activities			
Purchases of property and equipment	—	(44)	(2,686)
Proceeds from sale of fixed assets	—	—	7
Payments for patent licenses and trademarks	(168)	(172)	(2,445)
Net cash used in investing activities	(168)	(216)	(5,124)

Financing activities			
Proceeds from Members' contributions	—	—	2,685
Proceeds from issuance of common stock	3,289	2,084	32,171
Proceeds from issuance of preferred stock	—	4,941	17,202
Proceeds from issuance of convertible promissory notes	—	—	2,100
Proceeds from exercise of warrants and options	—	—	992
Payment of preferred stock dividends	—	(108)	(1,320)
Payment of promissory notes	—	—	(2,203)
Payment of offering costs	(16)	—	(1,776)
Proceeds from convertible debt, advances and loan payable	—	—	1,360
Payment of loan payable	—	—	(625)

	Three Months Ended March 31,		Inception (August 17, 2001) through March 31, 2013
	2013	2012	
Net cash provided by financing activities	3,273	6,917	50,586
Net increase in cash and cash equivalents	1,258	4,676	1,912
Cash and cash equivalents, beginning of period	654	1,337	—
Cash and cash equivalents, end of period	$ 1,912	$ 6,013	$ 1,912
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ —	$ —	$ 372
Cash paid for income taxes	$ —	$ —	$ 11
Non-cash financing activities:			
Discount on convertible debt from beneficial conversion feature	$ —	$ —	$ 641
Discount on convertible debt from warrants	$ —	$ —	$ 270
Accretion of preferred stock dividends	$ —	$ 18	$ 93
Deemed dividend on preferred stock	$ —	$ 1,375	$ 8,058
Reversal of preferred dividends accreted	$ —	$ —	$ (93)
Conversion of debt to common stock	$ —	$ —	$ 500
Warrants issued for placement agent services	$ —	$ —	$ 1,231
Warrants issued with promissory notes	$ —	$ —	$ 638
Non-cash sale of preferred stock	$ —	$ —	$ 382
Dividend on preferred stock exchanged for note receivable	$ —	$ —	$ 95
Conversion of preferred stock	$ —	$ —	$ 2
Cashless exercise of warrants	$ —	$ —	$ 1,847

See accompanying notes to the unaudited condensed consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
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 our human parthenogenetic stem cell technologies.

Going Concern

The Company continues in the development stage and as such has accumulated losses from inception and expects to incur additional losses in the near future. 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 $620,000 per month, excluding capital expenditures and patent costs averaging $60,000 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 2013. 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 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 $3,289,000. For further discussion, see Note 6, Capital Stock.

In May 2013, we filed an amendment to our pending registration statement with the Securities and Exchange Commission that, following effectiveness, would allow us to raise up to $5 million from the sale of common stock and warrants. However, this is a "best efforts" offering and we cannot predict the timing or amount of any funds that we may actually receive, if any.

Basis of Presentation

International Stem Cell Corporation was formed in June 2006. BTHC III, Inc. was a shell company that had no operations and no net assets. For accounting purposes the acquisition has been treated as a recapitalization of BTHC III with ISC California as the accounting acquirer (reverse acquisition). The historical statements prior to June 2006 are those of Lifeline Cell Technology, LLC, the wholly-owned subsidiary of ISC California.

The Company is a development-stage company with no revenue generated from its operations in therapeutic and biomedical products development through research and development efforts. To date, the Company has generated limited and unpredictable revenue to support its core therapeutic research and development efforts.

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, 2012. When used in these notes, the terms "Company," "we," "us," or "our" mean International Stem Cell Corporation and all entities included in our 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, 2012 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.

The preparation of financial statements requires that management make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expenses, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Cash Equivalents

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

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 March 31, 2013 and December 31, 2012, the Company had an allowance for bad debt totaling $18,000 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 $2,232,000 and $2,083,000 at March 31, 2013 and December 31, 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 three months ended March 31, 2013 and 2012 amounted to $15,000 and $17,000, respectively, and is included in research and development expense. Accumulated amortization as of March 31, 2013 and December 31, 2012 was $464,000 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 did not recognize material impairments on its long-lived assets during the three months ended March 31, 2013 and 2012.

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 expired. LSC's revenue accounted for 51% of total revenue during the three months ended March 31, 2013 and 2012. LCT contributed 49% of total revenue during the three months ended March 31, 2013 and 2012.

Deferred Revenue

The Company recognizes revenue from LSC products when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller's price to the buyer is fixed or determinable, and collectability is reasonably assured. However, the LSC products have a 30-day right of return guarantee and therefore, the Company defers all revenue associated with these product sales until the 30-day guarantee has expired. In addition, all costs associated with these product sales are reclassified against the deferred revenue account so that the net deferred revenue balance is presented. At March 31, 2013 and December 31, 2012, net deferred revenue totaled $163,000 and $233,000, respectively.

Cost of Sales

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

Research and Development Costs

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

Registration Payment Arrangements

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

Fair Value Measurements

On January 1, 2008, the Company adopted authoritative guidance for fair value measurements and fair value disclosures. 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 March 31, 2013 (in thousands).

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$ 1,505	$ 1,505	$ —	$ —

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):

	Warrants to purchase common stock
Beginning balance at December 31, 2011	$ 38
Issuances	—
Adjustments to estimated fair value	(38)
Ending balance at December 31, 2012	—
Issuances	—
Adjustments to estimated fair value due to expiry	—
Ending balance at March 31, 2013	$ —

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. 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 March 31, 2013 and December 31, 2012 approximate their fair values because of the short-term nature of those instruments.

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 March 31, 2013, there were 822,500 non-vested restricted shares, 9,462,500 warrants, and 15,864,448 vested and 6,811,745 non-vested stock options outstanding; and at December 31, 2012, there were 335,000 non-vested restricted shares, 3,500,000 warrants, and 15,407,902 vested and 7,969,230 non-vested stock options outstanding. These restricted shares, 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 months ended March 31, 2013 and 2012 or the period from inception through March 31, 2013.

Recent Accounting Pronouncements

There were no new accounting pronouncements during the three months ended March 31, 2013, as compared to the recent accounting pronouncements described in the Annual Report on Form 10-K for the fiscal year ended December 31, 2012, that are of significance, or potential significance, to the Company.

2. Inventory

Inventories are accounted for using the first-in, first-out (FIFO) method for Lifeline Skin Care products, and specific identification method for Lifeline Cell Technology 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):

	March 31, 2013	December 31, 2012
Raw materials	$ 280	$ 276
Work in process	237	211
Finished goods	728	748
Total	1,245	1,235
Less: allowance for inventory obsolescence	(39)	(36)
Inventory, net	$ 1,206	$ 1,199

3. Property and Equipment

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

	March 31, 2013	December 31, 2012
Machinery and equipment	$ 1072	$ 1,072
Computer equipment	347	347
Office equipment	225	225
Leasehold improvements	830	830
	2,474	2,474
Less: accumulated depreciation and amortization	(1,441)	(1,340)
Property and equipment, net	$ 1,033	$ 1,134

Depreciation expenses for the three months ended March 31, 2013 and 2012 were $101,000 and $108,000, 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, which terms are summarized below. The additional license fees aggregate a total of $400,000 and were secured by separate convertible promissory notes. The notes bore no interest unless they were not repaid at maturity, in which event they shall thereafter bear interest at an annual rate equal the lesser of 10% or the maximum non-usurious rate legally allowed.

The notes could be converted at the option of ACT into the first equity financing of LCT with cash proceeds in excess of $5,000,000 under the following conditions: i) Upon the consummation of the First Equity Financing; or ii) Immediately prior to the closing of any merger, sale or other consolidation of the Company or of any sale of all or substantially all assets of the Company which occurs prior to the First Equity Financing (an "Acquisition Event"). Notwithstanding the above, and only in the event that a conversion resulting from such Acquisition Event would result in a security not traded on a national stock exchange (including NASDAQ and NASDAQ small cap), upon written notice to the Company not later than five days after the consummation of the Acquisition Event and notice of the Acquisition Event to the holder of the note, the holder may elect to receive payment in cash of the entire outstanding principal of this Note. On February 7, 2013, the Company and ACT entered into Amended and Restated License Agreements 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, and its 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.

As of March 31, 2013, the total amount capitalized related to the acquired ACT licenses was $747,000, and $1,485,000 related to the other patent acquisition costs.

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

	Amount
2013 (remaining nine months)	45
2014	60
2015	60
2016	60
2017	61
Thereafter	1,272
Total	$ 1,558

5. Advances

Advance

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 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 March 31, 2013 no revenues were realized from this agreement.

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

6. Capital Stock

As of December 31, 2006, the Company was authorized to issue 200,000,000 shares of common stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share. In May 2012, the Company amended its Certificate of Incorporation to increase the authorized number of shares of common stock to 300,000,000.

In October 2006, the board of directors of BTHC III approved a stock split of 4.42 shares to 1. As a result of the split, the outstanding common stock of BTHC III increased from 500,000 to 2,209,993 shares. Pursuant to the Share Exchange Agreement, each share of International Stem Cell Corporation common stock was exchanged for one share of BTHC III common stock. All numbers in the financial statements and notes to the financial statements have been adjusted to reflect the stock split for all periods presented.

On December 27, 2006, the Company's Board of Directors and holders of a majority of the outstanding shares approved an increase in the authorized capital stock of the Company to 200,000,000 shares of Common Stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share.

In December 2006, the Company issued 1,350,000 shares of common stock, 350,000 of such shares in consideration for legal consulting services relating to the reverse merger and 1,000,000 shares in consideration for a contract to provide investor relations services which commenced September 1, 2006 for a period of one year.

In January and February 2007, ISC California completed the Brookstreet financing and issued 1,370,000 shares of common stock that was part of a private placement of securities by ISC California during the second half of 2006. The net proceeds from sale finalized in 2007 were $1,157,000 net of cash fees and expenses. In connection with the final settlement in 2007, the selling agent for the private placement received 274,000 additional warrants, which entitled the holder thereof to purchase through February, 2012 that number of shares of common stock for $1.00 each.

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 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. The Series A Preferred has an anti-dilution clause whereby, if the Company issues $1 million or more of equity securities or securities convertible into equity at a price below the respective exercise prices of the Series A Preferred or the Series A Warrant shall be adjusted downward to equal the price of

the new securities. The Series A Preferred has priority on any sale or liquidation of the Company equal to the purchase price of the Series A 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 A Preferred a dividend of the amount of the dividend the Series A Preferred holder would receive if the shares were converted just prior to the dividend declaration.

Each share of Series A Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. On March 30, 2012, the holder of the remaining 500,000 shares of Series A Preferred Stock, converted his shares to a total of 2,000,000 shares of common stock. 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, which has been triggered and the new price of the warrants was set at $0.25. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the current conversion price of the Series B Preferred Stock to $0.20. The Series B Preferred has a priority (senior to the shares of common stock, but junior to the shares of Series A Preferred 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 March 31, 2013 and December 31, 2012, the Company had 300,000 shares of the Series B Preferred Stock issued and outstanding.

Fair Value of Warrants Issued with Series A and B Preferred Stock

In accordance with the applicable authoritative guidance, the Company allocated the proceeds of the Series A and B preferred stock according to the value of the convertible preferred stock and the warrants based on their relative fair values. Fair value of the warrants issued with the Series A and Series B were determined using the Black-Scholes valuation model using risk-free interest rates of 3% and 3.37%, volatility rate of 65.0% and 57.9%, term of five years, and exercise price of $0.50.

In connection with the Series A and B rounds of financing, each investor received a warrant to purchase up to a number of shares of common stock for $1.00 per share. Subsequently, the exercise price for those warrants was adjusted down to $0.25 per share.

In August 2008, in accordance with the anti-dilution provisions of the securities, the conversion rates and exercise price were reduced to $0.25. Estimated adjusted fair value of the warrants was determined using the Black-Scholes valuation model using risk-free interest rate of 3%, volatility rate of 57.9%, term of five years, and

exercise price of $0.25. For Series A and Series B, the beneficial conversion feature and warrants were adjusted to $553,000 and $193,000, and $308,000 and $110,000, respectively.

During the second quarter of 2010, the holders of the warrants issued to the purchasers of Series A and B Preferred Stock signed a waiver to give up their rights to the anti-dilution provisions related to the warrants and the exercise price is now fixed at $0.25. The modification to the warrants resulted in the change in classification from a liability to equity and the warrants were re-valued at the date of modification. The revaluation of the warrants resulted in a reduction in the warrant value of $5,276,000 which was recorded as a credit to income. The adjusted value of the warrants of $804,971 was reclassified to Additional Paid-in Capital, thus eliminating any fair value of outstanding warrant liability as of June 30, 2010.

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 will be convertible into shares of common stock at $0.25 per share. The Series C Preferred had an anti-dilution clause whereby, if the Company issues 250,000 shares or more of equity securities or securities convertible into equity at a price below the conversion price of the Series C Preferred, the conversion price of the Series C Preferred shall be adjusted downward to equal the price of the new securities. The Series C Preferred shall have priority over the common stock on any sale or liquidation of the Company equal to the purchase price of the Series C Preferred Stock, plus a liquidation premium of 6% per year, but such payment may be made only after payment in full of the liquidation preferences of the Series A 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 shall have the same voting rights as the number of shares of common stock into which it would be convertible on the record date. 700,000 shares of Series C Preferred Stock were sold on August 20, 2008, and 1,300,000 shares of Series C Preferred Stock were sold on September 23, 2008. The beneficial conversion feature for the Series C preferred stock is $720,000. All the Series C Preferred Stock was issued to 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, Vice President of International Stem Cell and a director. As of December 31, 2012, the Company had 2,000,000 shares of the Series C Preferred Stock issued and outstanding. On January 22, 2013, the holders of Series C Preferred Stock converted all of the outstanding shares of Series C Preferred Stock 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, to obtain funding for both working capital and the eventual repayment of the outstanding obligation under the OID Senior Secured Convertible Note with a principal amount of $1,000,000 issued in May 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 up to 50 shares of Series D Preferred Stock ("Series D Preferred") at a price of $100,000 per Series D Preferred share. The sale of the Series D Preferred closed on the following schedule: (1) 10 shares were sold on December 30, 2008; (2) 10 shares were sold on February 5, 2009; and (3) 10 shares were sold on each of March 20, 2009, and June 30, 2009 and 3 shares on September 30, 2009. The Company raised a total of $4,700,000 in the Series D Preferred Stock round. The beneficial conversion feature from the Series D Preferred Stock is recognized as deemed dividend totaling $2,480,000. Of the Series D Preferred Stock issued, 10 shares of the Series D Preferred Stock was issued to 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, Vice President of International Stem Cell and a director and 33 shares of the Series D Preferred Stock was issued to our Chief Executive Officer and Co-Chairman of the Board of Directors Dr. Andrey Semechkin. As of March 31, 2013 and December 31, 2012, we had 43 shares of the Series D Preferred Stock issued and outstanding. 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 and Series G Preferred Stock are restricted from transferring any shares of Series D Preferred Stock 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 Stock 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 Stock in connection with the offering of securities pursuant to the registration statement originally filed with the Securities and Exchange Commission on October 18, 2012, including the shares issuable on exercise of all warrants registered hereunder. 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 Stock. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the current conversion price of the Series D Preferred Stock to $0.20.

During the three months ended March 31, 2013 and 2012, dividends of $0 and $108,000 were paid to the holders, respectively. As of March 31, 2013 and December 31, 2012, Series D Preferred Stock dividends of $0 and $0 were accrued, respectively.

Series E Preferred Stock

On June 30, 2009, the Company entered into a definitive agreement with Optimus Capital Partners, LLC ("Investor") for a $5 million investment commitment. The transaction was structured whereby the Company could draw down funds as needed, but had no obligations to make draws or use these funds if not needed. As funds were drawn down, the Company issued Series E Preferred Stock (the "Preferred Stock"). The Preferred Stock was not convertible into common stock and could be redeemed by the Company after one year. Each issue of Preferred Stock was accompanied by the issuance of five-year warrants to purchase common stock at 100% of the closing price of the company's common stock on the day prior to the date the company gave notice of its election to draw funds. The total exercise value of warrants issued equaled 135% of the drawdown amount. Dividends on the Preferred Stock were payable in additional shares of non-convertible Preferred Stock at the rate of 10% per annum. A commitment fee of $250,000, payable in shares of common stock, was made to the Investor. As part of the agreement, the Company filed a registration statement on July 31, 2009, which was declared effective on September 30, 2009. The investment was used to fund operations and working capital needs of the Company and expand its scientific research.

On July 31, 2009, the Company filed a registration statement with the Securities and Exchange Commission as part of the Preferred Stock Purchase Agreement the Company signed on June 30, 2009, between International Stem Cell Corporation and Optimus Capital Partners. Per the agreement, the Company was required to use its best efforts to promptly file (but in no event later than 30 days after the Effective Date) and cause to become effective as soon as possible a Registration Statement for the sale of all Common Shares. Each Registration Statement was required to comply when it became effective, and, as amended or supplemented, at the time of any Tranche Notice Date, Tranche Closing Date, or issuance of any Common Shares, and at all times during which a prospectus was required by the Act to be delivered in connection with any sale of Common Shares, to comply, in all material respects, with the requirements of the Act. The Company is and has been in compliance with all applicable requirements of that agreement.

To create the Series E Preferred sold to the Investor under the Agreement, on June 30, 2009, the Company amended its Certificate of Incorporation by filing a Certificate of Designation of Preferences, Rights and Limitations of the Series E Preferred. The Series E Preferred has priority over the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D 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 E Preferred, plus any accrued but unpaid dividends. From the date of issuance of the Series E Preferred, dividends at the rate per annum of ten percent (10%) of the Purchase Price per share accrued on such shares of Series E Preferred. Following the first anniversary of the issuance date, the Company had the right at its option to redeem the Series E Preferred at an amount equal to the purchase price of the Series E Preferred, plus any accrued but unpaid dividends and plus a redemption premium that declines from 26% (for redemptions between the first and second anniversary of issuance) to zero (for redemptions after the fourth anniversary of issuance).

During 2010, the Company drew $2.4 million of the private equity financing and issued 24 shares of the Series E Preferred Stock, as well as issued 3.7 million warrants which were immediately exercised to purchase 3.7 million shares of the Company's common stock.

Exchange Agreement Series E Preferred Stock

On June 11, 2010, the Company entered into an Exchange Agreement (the "Optimus Exchange Agreement") with Optimus Capital Partners, LLC ("Optimus") under which the Company and Optimus agreed to exchange all of the Series E Preferred Stock previously issued to Optimus pursuant to the Preferred Stock Purchase Agreement dated June 30, 2009 (the "Optimus Preferred Stock Agreement") for all of the promissory notes of Optimus (the "Optimus Notes") issued to the Company in that transaction as payment for shares of the Company's common stock. As part of the exchange transaction, the Company agreed to waive all accrued interest on the Optimus Notes and Optimus agreed to waive all accrued dividends and redemption premiums on the Series E Preferred Stock. The exchange was completed in June 2010 and is discussed in more detail below. Following the return of all shares of Series E Preferred Stock, the Company filed a Certificate of Elimination for the Series E Preferred Stock to remove the powers, preferences, privileges and other rights of the Series E Preferred Stock.

Series F Preferred Stock

On May 4, 2010, International Stem Cell Corporation entered into a Preferred Stock Purchase Agreement with Socius CG II, Ltd., a Bermuda exempted company (the "Investor"), to sell for up to $10,000,000 up to one thousand (1,000) shares of Series F Preferred Stock ("Series F Preferred") at a price of $10,000 per Series F Preferred share. The Company was entitled to determine the time and amount of Series F Preferred to be purchased by the Investor and the Company intended to sell all 1,000 shares of Series F Preferred at a single time. The Series F Preferred could not be converted into common stock and was redeemable by the Company. Under the terms of the Agreement, the Company provided the Investor with a non-refundable fee of 250,000 shares of Company common stock (the "Fee Shares") and issued the Investor a warrant to purchase up to 7,000,000 shares of the Company's common stock, with the exercise price of $1.93 per share, subject to adjustment. The closing of the sale of the Series F Preferred took place in early June 2010.

Exchange Agreement Series F Preferred Stock

On June 11, 2010, the Company, entered into an Exchange Agreement (the "Socius Exchange Agreement") with Socius CG II, Ltd. ("Socius") under which the Company and Socius agreed to exchange all of the Series F Preferred Stock previously issued to Socius pursuant to the Preferred Stock Purchase Agreement dated May 4, 2010 (the "Socius Preferred Stock Agreement") for all of the promissory notes of Socius (the "Socius Notes") issued to the Company in that transaction as payment for shares of the Company's common stock and a $2.5 million note issued in partial payment for the Socius Series F Preferred Stock. As part of the exchange transaction, the Company agreed to waive all accrued interest on the Socius Notes and Socius agreed to waive all

accrued dividends and redemption premiums on the Socius Series F Preferred Stock. The exchange was completed in June 2010 and is discussed in more detail below. Following the return of all shares of Series F Preferred Stock, the Company filed a Certificate of Elimination for the Series F Preferred Stock to remove the powers, preferences, privileges and other rights of the Series F Preferred Stock.

Perpetual Preferred Stock

As part of the Series E financing agreement, the Company recorded a Perpetual Preferred Stock equal to the amount of financing received during the year, plus accrued dividends, and Note Receivable equal to 135% of financing received, which represents the amount of warrant coverage per the agreement, plus accrued interest. In accordance with applicable authoritative guidance on Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity, the Company classified the Note Receivable as contra Equity ("Note subscription on Perpetual Preferred Stock") and the Perpetual Preferred Stock as a liability ("Long Term Perpetual Preferred Stock"). The Note Receivable accrued interest at a rate of 2% per year and the Perpetual Preferred Stock accrued a 10% dividend per year. The Company allocated the proceeds of the Series E Preferred Stock according to the value of the preferred stock and the fair value of the warrants. Estimated adjusted fair value of the warrants was determined using the Black-Scholes valuation model using risk-free interest rates ranging from 2.40% to 2.65%, volatility rate ranging from 64.46% to 65.33%, term of five years, and exercise price ranging from $0.56 to $0.74.

As a result of the exchange transactions for the Series E and Series F Preferred stock, all of the Company's obligations under the previously outstanding Series E Preferred Stock and Series F Preferred Stock, which collectively had liquidation preferences of $15 million senior to the shares of the Company's common stock and redemption premiums that started at 26% of the liquidation preference were retired and the Company no longer held any promissory notes of either Socius or Optimus. Because the parties to these exchange transactions determined that the instruments and rights being exchanged were of equivalent value, neither party paid any cash to the other party to the exchange transaction. Therefore, as of June 30, 2010, the Company reversed out all of the Perpetual Preferred Stock and the Notes Receivable related to the Perpetual Preferred Stock.

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 five million (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, Vice President of International Stem Cell 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 A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series G Preferred, plus any accrued but unpaid dividends, 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. Historically, from the date of issuance of the Series G Preferred, 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 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, alter the percentage of board seats held by the Series G 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 shares 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 and Series G Preferred Stock 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 and Series G Preferred Stock. Accordingly, dividends from inception in the amount of $93,000 accreted to the carrying value of Series G preferred stock have been reversed. Under the Waiver Agreement, the holders of Series D and Series G Preferred Stock are restricted from transferring any shares of Series D Preferred Stock or Series G Preferred Stock unless the transferee agrees to be bound by the Waiver Agreement.

The Company determined that the Series G convertible preferred shares 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 condensed consolidated balance sheet. Additionally, legal costs related to the Series G financing in the amount of $59,000 were recorded in the mezzanine equity as well.

The Company determined that as the initial conversion price at the date of close of the Series G transaction was lower than the closing market price on that day (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 convertible 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 convertible shares 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 current conversion price of the Series G Preferred Stock at $0.37, and the conversion ratio to 2.67 shares of common stock for every share of Series G Preferred.

No dividend was paid to the holders during the three months ended March 31, 2013 and 2012.

Common Stock Purchase Agreement

On December 9, 2010, International Stem Cell Corporation ("ISCO" or the "Company") entered into a Common Stock Purchase Agreement (the "Purchase Agreement") with Aspire Capital Fund, LLC ("Aspire Capital") which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $25.0 million of shares of ISCO common stock (the "Purchase Shares") over the term of the Purchase Agreement. In connection with the execution of the Purchase Agreement, ISCO 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 is not obligated to pay any additional expense reimbursement or any placement agent fees in connection with the transaction.

The Purchase Agreement is intended to provide the Company with a source of capital of up to $25 million over a term of up to three years. The sales price of any shares the Company elects to sell will be known by the Company at the time it makes the decision to sell and will be determined by a formula (described below) based on the price of the Company's stock over the preceding 12 days. As a result, the Company will be able to sell shares on whatever schedule it believes best suits its needs and is not required to sell any shares unless it deems such sales to be beneficial to the Company.

Once the Registration Statement (referred to below) is effective, on any day on which the principal market for shares of ISCO common stock is open for trading, over the three-year term of the Purchase Agreement, the Company has 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 ISCO common stock specified in the Purchase Notice. The number of shares the Company may designate in the Purchase Notice varies based on the closing price of the ISCO common stock on the date of the Purchase Notice. The Company may direct Aspire Capital to purchase up to: (1) 100,000 shares of common stock so long as the closing price is above $0.25; (2) 150,000 shares of common stock so long as the closing price is above $1.25; (3) 200,000 shares of common stock so long as the closing price is above $1.75 and (4) 300,000 shares of common stock so long as the closing price is above $2.25. The purchase price per share (the "Purchase Price") for each Purchase Notice is 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.

The timing and the number of shares covered by each Purchase Notice are determined in the Company's sole discretion, and the applicable Purchase Price will be determined prior to delivery of any Purchase Notice. The Company may deliver multiple Purchase Notices to Aspire Capital from time to time during the term of the Purchase Agreement, so long as the most recent purchase has been completed. There are no trading volume requirements or restrictions under the Purchase Agreement. Aspire Capital has no right to require any sales by the Company, but is obligated to make purchases as directed in accordance with the Purchase Agreement.

The Purchase Agreement contains customary representations, warranties, covenants, closing conditions and indemnification and termination provisions. The Purchase Agreement may be terminated by the Company at any time, at its discretion, without any cost or penalty. Aspire Capital has agreed not to cause, or engage in any manner whatsoever, any direct or indirect short selling or hedging of ISCO common stock. The Company did not pay any additional amounts to reimburse or otherwise compensate Aspire Capital in connection with the transaction. There are no limitations on use of proceeds, financial or business covenants, restrictions on future funding, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement.

The Company's net proceeds will depend on the Purchase Price and volume and frequency of the Company's sales of shares to Aspire Capital; provided, however, that the maximum aggregate proceeds from sales of shares to Aspire Capital under the Purchase Agreement is $25 million. The Company anticipates that delivery of Purchase Notices will be made subject to market conditions, in light of the Company's capital needs from time to time and under the limitations contained in the Purchase Agreement. The Company expects to use proceeds from sales of shares to Aspire Capital for funding its research and development activities and for general corporate purposes and working capital requirements.

Registration Rights

In connection with the Purchase Agreement, the Company also entered into a Registration Rights Agreement (the "Registration Rights Agreement") with Aspire Capital, dated December 9, 2010. The Registration Rights Agreement provides, among other things, that the Company will register the resale of the commitment fee shares and the shares that have been or may be sold to Aspire Capital (collectively, the "Securities") by Aspire Capital. The Company further agreed to keep the Registration Statement effective and to indemnify Aspire Capital for certain liabilities in connection with the sale of the Securities under the terms of the Registration Rights Agreement.

During the three months ended March 31, 2013 and 2012, the Company has issued 1,200,000 and 5,000,000 shares of common stock, respectively, to Aspire Capital, raising $264,000 and $2.1 million, respectively, which was used to fund its operational activities.

Reserved Shares

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

Options outstanding	22,676,193
Options available for future grant	17,050,980
Convertible preferred stock	36,403,812
Warrants	9,462,500
	85,593,485

7. Related Party Transactions

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

Dividend amounts related to Series D and Series G financing, of $82,000 were accrued at March 31, 2012 to be payable to X-Master, Inc. and AR Partners LLC, entities affiliated with our Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin and Dr. Ruslan Semechkin, Vice President of International Stem Cell and a director. The Series D dividends were payable to both X-Master, Inc. and our Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin, while Series G Preferred Stock dividends were initially cumulative and payable upon conversion of the Series G shares or upon certain Series G deemed liquidation events to AR Partners, LLC. These amounts were paid during 2012. 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 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. Accordingly, the Company reversed all previously-accrued and unpaid dividends related to Series G Preferred Stock totaling $93,000. Under the Waiver Agreement, the holders of Series D and Series G Preferred Stock are restricted from transferring any shares of Series D Preferred Stock unless the transferee agrees to be bound by the Waiver Agreement. No dividends were accrued or paid during the three months ended March 31, 2013 pursuant to the Waiver Agreement.

During the first quarter of 2011, the Company executed an operating lease for our corporate offices with S Real Estate Holdings LLC. S Real Estate Holdings LLC which is owned by Dr. Ruslan Semechkin, the Company's Vice President of Research and Development 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 March 31, 2013 and 2012, the Company recorded $28,000 and $27,000, respectively, in rent expense that was related to the facility lease arrangement with related parties.

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 section 382 which could limit the amount of the net operating loss and tax credit carryovers that can be used in future years. There can be no assurances that the Company will ever be able to realize the benefit of some or all of the loss and credit carryforwards either due to ongoing operating losses or due to ownership change limitations.

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 option 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 three months ended March 31, 2013 and 2012, the Company recognized $409,000 and $685,000, as stock-based compensation expense, respectively. Unrecognized compensation expense related to stock options as of March 31, 2013 and 2012 was $2.96 million and $6.1 million, respectively, which is expected to be recognized over a weighted average period of approximately 2.0 years and 2.7 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 three months ended March 31, 2013 and 2012:

	Three Months Ended March 31, 2013	Three Months Ended March 31, 2012
Significant assumptions (weighted-average):		
Risk-free interest rate at grant date	0.94%	1.11%
Expected stock price volatility	121%	127%
Expected dividend payout	0%	0%
Expected option life-years based on management's estimate	5.7 years	6.2 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
$0.22-$0.50	4,050,400	7.15	$ 0.41	2,387,880	5.80	$ 0.43
$0.51-$0.75	9,365,293	6.70	$ 0.62	7,325,268	6.66	$ 0.62
$0.76-$1.00	1,895,000	4.27	$ 0.98	1,767,000	3.96	$ 0.99
$1.01-$1.25	343,400	8.09	$ 1.10	239,800	8.09	$ 1.10
$1.26-$1.50	1,192,100	6.88	$ 1.31	834,900	6.68	$ 1.32
$1.51-$3.20	5,830,000	7.59	$ 1.94	3,309,600	7.47	$ 1.96
	22,676,193	6.84	$ 0.99	15,864,448	6.42	$ 0.95

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	—	$ 0
Exercised	—	$ 0
Canceled or expired	(56,000)	$ 0.76
Outstanding at March 31, 2013	15,066,900	$ 1.19

	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 March 31, 2013	7,609,293	$ 0.62

Warrants

Brookstreet Securities Corporation

As of December 31, 2006, Brookstreet Securities Corporation ("Brookstreet") had earned 1,976,190 warrants as partial compensation for its services as placement agent for the raising of equity capital. An additional 274,000

warrants were earned by Brookstreet in the first quarter of 2007, for a total of 2,250,190 warrants related to the Company's private placement. In addition, 426,767 warrants were granted to a number of individuals as compensation for services rendered to the Company. Each Warrant entitles the holder thereof to purchase the number of shares of common stock that could be purchased by the dollar amount of the Warrant being exercised at $1.00 in the case of the Brookstreet warrants and $0.80 in the case of the individuals' warrants. The Company recognized the value attributable to the individuals' warrants in the amount of $222,000 and applied it to general and administrative expense. The Company recognized the value attributable to the Brookstreet warrants in the amount of $1.2 million. The Company recognized the Brookstreet warrants as a component of additional paid-in capital with a corresponding reduction in additional paid-in capital to reflect this as a non-cash cost of the offering. Proceeds from the private equity placement totaled $9.9 million and are offset by cash offering costs of $1.5 million as well as the non-cash offering cost of $1.2 million related to the fair value of the Brookstreet warrants. The Company valued the Brookstreet warrants and the warrants issued to the individuals using the Black-Scholes pricing model and the following assumptions: contractual terms of 5 years and 3 years, an average risk free interest rate of 4.58% and 5.13%, a dividend yield of 0% and 0%, and volatility of 71% and 63%, respectively.

The number of warrants converted into common stock by Brookstreet was 484,675 for the completion of the Brookstreet financing and issued 1,370,000 shares of common stock that was part of a private placement of securities by ISC California during the second half of 2006. The net proceeds from the shares whose sale was finalized in 2007 was $1.2 million net of cash fees and expenses. In connection with the final settlement in 2007, the selling agent for the private placement received 274,000 additional warrants, which entitle the holder thereof to purchase that number of shares of common stock for $1.00 each.

During 2008, the Company raised additional capital by issuing Preferred Series A, B, C and D stock. This issuance of the Preferred Series C triggered an anti-dilutive clause in the Brookstreet warrant agreement, where Brookstreet would receive an adjustment downward in the price it pays for converting its warrants and resulted in a deemed dividend of $337,000. Brookstreet earned a total of 2,250,190 warrants in 2006 and 2007 in connection with the Company's private placement. Each Warrant entitles the holder thereof to purchase one share of common stock for $1.00, revalued to $0.56 per warrant. The Company recognized the value attributable to the warrants in the amount of $1.2 million in 2006 and $169,000 in 2007 as a component of additional paid-in capital with a corresponding reduction in additional paid-in capital to reflect the issuance as a non-cash cost of the offering. Prior to 2009, the Company valued the Brookstreet warrants using the Black-Scholes pricing model and the following assumptions: contractual terms of 5 years, an average risk free interest rate of 4.58%, a dividend yield of 0%, and volatility of 70.57%. During 2009, the Company issued a total of 3,510,206 shares of common stock which related to warrants originally issued to Brookstreet. Brookstreet converted a total of 612,267 warrants into 484,675 shares of common stock at an average cashless conversion price of $0.56 per share.

Implementation of Accounting Standards Code (ASC) 815-40-15, (formerly known as EITF 07-5 "Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock Price")

The Accounting Standards Code (ASC) 815-40-15, with an effective date of December 15, 2008, should have been implemented as of January 1, 2009, and in future periods. This Issue applies to any freestanding financial instrument or embedded feature that has all the characteristics of a derivative as described in ASC 815-10-15-83, (previously paragraphs 6–9 of Statement 133) for purposes of determining whether that instrument or embedded feature qualifies for the first part of the scope exception in ASC 815-10-74 (previously paragraph 11(a) of Statement 133). This Issue also applies to any freestanding financial instrument that is potentially settled in an entity's own stock, regardless of whether the instrument has all the characteristics of a derivative for purposes of determining whether the instrument is within the scope of ASC 875-40.

During 2008, the Company issued a Series C Preferred round of financing which triggered the anti-dilution clause in the Brookstreet warrant agreement ("Brookstreet Warrants"). From issuing the Series C Preferred Stock, the exercise prices of the Brookstreet Warrants were revalued down to $0.56 per warrant. Based on the

anti-dilution clause being triggered and the exercise price of the Brookstreet Warrants being revalued downward to $0.56, ASC 815-40-15 should have caused the Brookstreet Warrants to be treated and accounted for as a liability.

The anti-dilution provisions of the Brookstreet Warrants failed the criteria set by this ASC and therefore required reclassification from equity to liability. The reclassification resulted in the requirement to revaluate the Brookstreet Warrants at each reporting period with a corresponding charge or credit to the statement of operations. Valuation of the warrants was estimated using the Monte-Carlo simulation method using the following assumptions: stock price and warrant price as of the valuation date, the Company's historical stock price, interest rate on U.S. treasury notes, dividend rate derived from the Series D Preferred Stock, warrant expiration; simulated as a daily interval and anti-dilution impact if the Company had to raise capital below $0.25 per share. The reclassification and valuation of the warrants resulted in warrant liabilities of zero and $38,000 as of March 31, 2012 and December 31, 2011, respectively. In addition, in the three months ended March 31, 2013 and 2012, we recorded income of $0 and $38,000, respectively, in our consolidated condensed statements of operations related to the change in the fair value of warrants.

The 1,721,629 Brookstreet Warrants outstanding as of December 31, 2011 expired on February 14, 2012, and the Company recorded $38,000 in the first quarter ending March 31, 2012 to reduce the fair market value of the warrants to zero.

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 our former Co-Chairman of the Board with an exercise price of $0.25 per share, all of which remain outstanding at March 31, 2013 and December 31, 2012.

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, resulting in the issuance of an additional 2,000,000 common stock warrants. In addition, two warrants to purchase shares of common stock were issued with the purchase of one share of Series B Preferred Stock, resulting in the issuance of an additional 1,100,000 common stock warrants. As of December 31, 2010, 400,000 warrants related to the Series A Preferred Stock were converted into 800,000 common shares.

1,600,000 warrants related to the Series A Preferred Stock expired in January, 2013. As of March 31, 2013 and December 31, 2012, there were 300,000 warrants related to the Series B Preferred Stock outstanding with an exercise price of $0.25 per share. The warrants related to the Series B Preferred Stock expire in July, 2014.

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 20 cents. 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 20 cents.

Warrants issued to BioTime

During June 2008, the Company entered into an agreement with BioTime, Inc. ("Bio Time"). Based on the agreement, Bio Time 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. These warrants expired 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 to be 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.

Accordingly, there were warrants for 100,000 shares of common stock at a strike price of $1.50 vested as of December 31, 2011 in connection with the agreement. In addition, as of September 30, 2012, there were 100,000 warrants vested with a strike price of $2.00. The Company valued the warrants issued in connection with the SkinCare Marketing Agreement using the Black-Scholes pricing model and the following assumptions: contractual terms of 5 years, an average risk free interest rate of 0.94%, a dividend yield of 0%, and volatility of 134%.

Share data related to warrant transactions through March 31, 2013 were as follows:

	Series A	Series B	YKA Loan	BioTime	Bridge Loan & non-cash Grants	Brookstreet	Skin Care Marketing	Jan 2013 Financing	Mar 2013 Financing	Shares	Price per Share Range	Price per Share Weighted average exercise price
Outstanding, December 31, 2009	2,000,000	1,100,000	1,400,000	30,000	1,629,623	3,405,929	—	—	—	9,565,552	$ 0.25-0.80	$ 0.45
2010												
Issued										—		
Exercised	(400,000)	(600,000)			(248,902)	(1,645,772)				(2,894,674)	0.25-0.80	0.47
Forfeited/Cancelled										—		
Outstanding, December 31, 2010	1,600,000	500,000	1,400,000	30,000	1,380,721	1,760,157	—	—	—	6,670,878	$ 0.25-0.80	$ 0.45
2011												
Issued							200,000			200,000	1.50-2.00	1.75
Exercised		(200,000)			(62,800)	(38,528)				(301,328)	0.25-0.80	0.40
Forfeited/Cancelled										—		
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/Cancelled				(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	$ 0.34
2013												
Issued								5,062,500	2,500,000	7,562,500	$ 0.20	$ 0.20
Exercised										—		
Forfeited/Cancelled	(1,600,000)									(1,600,000)	$ 0.25	$ 0.25
Outstanding, March 31, 2013	—	300,000	1,400,000	—	—	—	200,000	5,062,500	2,500,000	9,462,500	$ 0.20-2.00	$ 0.24

10. Commitments and Contingencies

Leases

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. Our current base rent is $8,338 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 monthly base rent will increase by 3% annually on the anniversary date of the agreement.

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 administrative purposes. Our current base rent in the new facilities is $11,306 per month. The initial lease term expires December 31, 2015 and there is an option for an additional five years.

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 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 covers approximately 4,653 square feet, which was occupied on or about March 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 rent payments in March 2011 once it occupied the facilities, at an initial rate of $5,118 per month. The lease was amended effective July 2011 to account for additional square footage occupied by Company personnel. As such, the initial monthly rate has increased to $9,018 per month. In addition, 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, CC&R fees and increases in property tax and insurance.

S Real Estate Holdings LLC is owned by Dr. Ruslan Semechkin, the Company's Vice President of Research and Development 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.

Future minimum lease payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of March 31, 2013, are as follows (in thousands):

	Amount
2013 (remaining nine months)	$ 273
2014	363
2015	372
2016	97
Total	$ 1,105

Marketing Arrangement and Agreement

The Company signed a Term Sheet ("arrangement") in late 2010 with a third party marketing organization that would serve as a consultant and assist in marketing for Lifeline Skin Care, Inc., ("LSC") a wholly-owned subsidiary of International Stem Cell, to sell its skin care products through various proprietary mailings. As part of the arrangement, there were various phases and objectives to accomplish, one of which was the potential

formation of a joint venture in the future between the parties. Based on the arrangement, LSC paid to the marketing organization 40% of net profits (as defined in the arrangement) generated from the proprietary mailings.

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, superseding the terms of the arrangement with the third party marketing organization. According to the agreement, the third party marketing organization will continue to provide assistance to LSC 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 provides for two tranches of common stock warrants to be 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, 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. The Company recognized $0 and $36,000 in stock-based compensation from warrants issued for services during the three months ended March 31, 2013 and 2012, respectively. During the three months ended March 31, 2013 and 2012, LSC incurred $24,000 and $38,000, respectively, under the terms of this arrangement and agreement.

Customer Concentration

During the three months ended March 31, 2013, one major customer, accounted for 16% of our consolidated revenues. No single customer accounted for more than 10% of our revenues during the three months ended March 31, 2012.

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 (a development stage company) ("the Company") as of December 31, 2012 and 2011, and the related consolidated statements of operations, changes in redeemable convertible preferred stock, members' deficit and stockholders' equity (deficit), and cash flows for the years then ended and for the period from inception (August 17, 2001) through December 31, 2012. 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 did not audit the consolidated financial statements of International Stem Cell Corporation and Subsidiaries for the period from inception to December 31, 2010. Such statements are included in the cumulative inception to December 31, 2012 totals of the consolidated statements of operations and cash flows and reflect total revenues, total expenses and net loss of 26%, 63% and 70%, respectively, of the related cumulative totals. Those statements were audited by other auditors whose report has been furnished to us and our opinion, insofar as it relates to amounts for the period from inception to December 31, 2010, included in those cumulative totals, is based solely upon the report of the other auditors.

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. For the year ended December 31, 2012, the Company is not required to have, nor were we engaged to perform, an audit of its 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, based on our audits and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of International Stem Cell Corporation and Subsidiaries as of December 31, 2012 and 2011, and the results of their operations and their cash flows for the years then ended, and for the period from inception (August 17, 2001) to December 31, 2012, 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.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of International Stem Cell Corporation and Subsidiaries' internal control over financial reporting as of December 31, 2011, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 16, 2012, expressed an unqualified opinion thereon.

/s/ Mayer Hoffman McCann P.C.

MAYER HOFFMAN MCCANN P.C.
San Diego, California
March 25, 2013

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

INTERNATIONAL STEM CELL CORPORATION AND SUBSIDIARIES

We have audited International Stem Cell Corporation and Subsidiaries' (a development stage company) ("the Company") internal control over financial reporting as of December 31, 2011, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, International Stem Cell Corporation and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2011, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of International Stem Cell Corporation and Subsidiaries as of December 31, 2011, and the related consolidated statements of operations, members' deficit and stockholders' equity (deficit), and cash flows for the year then ended and for the period from inception (August 17, 2001) to December 31, 2011, and our report dated March 16, 2012 (which includes an explanatory paragraph relating to the uncertainty of the Company's ability to continue as a going concern) expressed an unqualified opinion on those consolidated financial statements.

/s/ Mayer Hoffman McCann P.C.
San Diego, California
March 16, 2012

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
International Stem Cell Corporation
(A Development Stage Company)
Oceanside, California

We have audited the accompanying consolidated statements of operations, members' deficit and stockholders' equity (deficit) and cash flows of International Stem Cell Corporation and subsidiaries (a development stage company) (the "Company") for the period from inception (August 17, 2001) through December 31, 2010. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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 audit 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 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 audit provides a reasonable basis for our opinion.

As discussed in note 2 to the 2010 consolidated financial statements, the consolidated balance sheet, statement of operations, members' deficit and stockholders' equity (deficit) and cash flows for the year ended December 31, 2010 and for the period from inception (August 17, 2001) through December 31, 2010 have been restated.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the results of operations and cash flows of International Stem Cell Corporation and subsidiaries for the period from inception (August 17, 2001) through December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

/s/ Vasquez & Company LLP

Los Angeles, California
March 24, 2011 (except for notes 1, 2 and 10
to the 2010 consolidated financial statements,
as to which the date is June 22, 2011)

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

	December 31, 2012	December 31, 2011
Assets		
Cash and cash equivalents	$ 654	$ 1,337
Accounts receivable, net of allowance for doubtful accounts of $4 and $0 at December 31, 2012 and 2011, respectively	273	140
Inventory, net	1,199	1,268
Prepaid expenses and other current assets	456	274
Total current assets	2,582	3,019
Property and equipment, net	1,134	1,420
Intangible assets, net	1,634	1,282
Deposits and other assets	20	16
Total assets	$ 5,370	$ 5,737
Liabilities, Redeemable Preferred Stock and Stockholders' Equity (Deficit)		
Accounts payable	$ 969	$ 777
Accrued liabilities	730	752
Deferred revenue	233	189
Related party payable	5	108
Advances	250	250
Warrants to purchase common stock	—	38
Total current liabilities	2,187	2,114
Convertible Redeemable Series G Preferred stock, $0.001 par value, 5,000,000 shares and 0 were authorized, issued and outstanding at December 31, 2012 and 2011, respectively, liquidation preferences of $5,000 and $0 at December 31, 2012 and 2011, respectively	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, 2012 and 2011, liquidation preference of $4,320 at December 31, 2012 and 2011	—	—
Series A Preferred stock, $0.001 par value, 0 and 5,000,000 shares authorized at December 31, 2012 and 2011, respectively, 0 and 500,000 issued and outstanding at December 31, 2012 and 2011, respectively, liquidation preferences of $0 and $615 at December 31, 2012 and 2011, respectively	—	1
Series B Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding at December 31, 2012 and 2011, respectively, liquidation preferences of $385 and $367 at December 31, 2012 and 2011, respectively	0	0
Series C Preferred stock, $0.001 par value, 3,000,000 shares authorized, 2,000,000 issued and outstanding at December 31, 2012 and 2011, respectively, liquidation preferences of $2,507 and $2,387 at December 31, 2012 and 2011, respectively	2	2
Common stock, $0.001 par value, 300,000,000 and 200,000,000 shares authorized at December 31, 2012 and 2011, respectively, 87,388,815 and 80,036,315 issued and outstanding at December 31, 2012 and 2011, respectively	87	80
Additional paid-in capital	69,945	63,995
Deficit accumulated during the development stage	(71,792)	(60,455)
Total stockholders' equity (deficit)	(1,758)	3,623

Total liabilities, redeemable preferred stock and stockholders' equity (deficit)	$ 5,370	$ 5,737

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31,		Inception (August 17, 2001) through December 31,
	2012	2011	2012
Revenues			
Product sales	$ 4,567	$ 4,532	$ 12,198
Royalties and license	—	—	135
Total revenue	4,567	4,532	12,333
Development expenses			
Cost of sales	1,272	1,618	4,606
Research and development	3,599	4,434	21,893
Selling and marketing	2,065	1,475	5,939
General and administrative	7,444	8,360	39,128
Total development expenses	14,380	15,887	71,566
Loss from development activities	(9,813)	(11,355)	(59,233)
Other income (expense)			
Settlement with related company	—	—	(93)
Miscellaneous expense	(65)	(163)	(245)
Dividend income	—	1	94
Interest expense	—	—	(2,225)
Sublease income	7	11	316
Change in market value of warrants	38	2,335	(1,357)
Total other income (expense), net	(20)	2,184	(3,510)
Loss before income taxes	(9,833)	(9,171)	(62,743)
Provision for income taxes	—	—	7
Net loss	$ (9,833)	$ (9,171)	$ (62,750)
Deemed dividend on preferred stock	$ (1,375)	$ —	$ (1,375)
Dividends on preferred stock	$ (129)	$ (430)	$ (8,097)
Net loss attributable to common stockholders	$ (11,337)	$ (9,601)	$ (72,222)
Net loss per common share-basic and diluted	$ (0.13)	$ (0.12)	
Weighted average shares-basic and diluted	85,936	77,320	

See accompanying notes to the consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to December 31, 2012
(in thousands)

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
Balance at August 17, 2001	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Members contribution																						100
Net loss for the period from inception																						(141)
Balance at December 31, 2001																						(41)
Members contributions																						250
Net loss for the year ended																						(391)
Balance at December 31, 2002																						(182)
Members contributions																						195
Net loss for the year ended																						(519)
Balance at December 31, 2003																						(506)
Members contribution																						1,110
Net loss for the year ended																						(854)
Activity through December 31, 2004																						(250)
Members contributions																						780
Net loss for the year ended December 31, 2005																						(1,386)
Balance at December 31, 2005																						(856)
Members contribution																						250
Effect of the Reorganization Transactions			20,000	20															2,665	(3,291)	(606)	606
BTHC transactions			2,210	2															(2)		—	
Offering costs																			(2,778)		(2,778)	
Warrants issued for equity placement services																			1,231		1,231	
Warrants issued for services																			222		222	
Warrants issued with promissory note																			638		638	
Common stock issued for services			1,350	1															1,349		1,350	
Issuance of common stock			10,437	11															10,371		10,382	
Stock-based compensation																			842		842	
Net loss for the year ended December 31, 2006																				(6,584)	(6,584)	

See accompanying notes to the consolidated financial statements.

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	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock												Note Subscr-iption on Perpetual Preferred	Subscr-iption Receivable on Common Stock	Add-itional Paid-in Capital	Deficit accum-ulated during the Develop-ment Stage	Total Stock-holders' Equity (Deficit)	Mem-bers' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
Balance at December 31, 2006			33,997	$ 34	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$14,538	$ (9,875)	$ 4,697	$ —
Offering costs																			$ (382)		$ (382)	
Warrants issued for equity placement services																			169		169	
Issuance of common stock			1,370	1															1,369		1,370	
Warrants exercised			3	—															3		3	
Stock-based compensation																			427		427	
Net loss for the year ended December 31, 2007																				(6,072)	(6,072)	
Balance at December 31, 2007			35,370	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,124	(15,947)	212	—
Issuance of Preferred Stock					1,000	1	550	1	2,000	2									4,546		4,550	
Warrants issued and beneficial conversion feature																			911		911	
Issuance of Common Stock for services			3,041	3															593		596	
Stock-based compensation																			735		735	
Deemed Dividend																			1,582	(1,582)	—	
Net loss for the year ended December 31, 2008																				(6,571)	(6,571)	
Balance at December 31, 2008			38,411	38	1,000	1	550	1	2,000	2	—	—	—	—	—	—	—	—	24,491	(24,100)	433	—
Issuance of Preferred Stock																			3,682		3,682	
Preferred Stock Subscription																					—	
Issuance of Common Stock																					—	
For services			1,208	1															941		942	
From conversion of preferred stock			3,727	4	(400)	—	(150)	(1)											(3)		—	
From conversion of debt			2,000	2															498		500	
From exercise of warrants			4,392	4													(2,700)		3,659		963	
From cashless exercise of warrants			3,510	4															279		283	
For cash			2,787	3															1,397		1,400	
Stock-based compensation																			410		410	
Warrants issued for services																			281		281	
Options issued for services																			106		106	
Deemed Dividend																			3,163	(4,032)	(869)	
Cumulative effect adjustment-warrant liabilities																			(1,704)	430	(1,274)	
Equity placement shares																			(250)		(250)	

Dividend on preferred stock																						(364)	(364)	
Net loss for the year ended December 31, 2009																	(9)					(8,504)	(8,513)	

See accompanying notes to the consolidated financial statements.

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	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
Balance at December 31, 2009			56,035	56	600	1	400	—	2,000	2	—	—	—	—	—	—	(2,709)	—	36,950	(36,570)	(2,270)	$ —
Preferred Stock Subscription															1	0						
Issuance of Common Stock																					—	
For services			749	1															1,084		1,085	
From conversion of preferred stock and options			800	1	(100)	—	(100)	—							(1)	—			(1)		—	
From conversion of debt																					—	
From exercise of warrants			5,063	5													(3,254)(5)		4,747		1,493	
From cashless exercise of warrants and options			1,531	2															1,536		1,538	
For cash			10,593	10															10,181		10,190	
Stock-based compensation																			2,068		2,068	
Warrants issued for services																					—	
Options issued for services																					—	
Warrants reclassified to equity																			805		805	
Deemed dividend on preferred stock																				(1,037)	(1,037)	
Accrued and paid dividend on preferred stock																				(524)	(524)	
Swap notes Receivable and Perpetual																					—	
Preferred Stock																	5,963		(1,200)		4,763	
Net loss for the year ended December 31, 2010																					—	
																				(12,723)	(12,723)	
Balance at December 31, 2010			74,771	75	500	1	300	—	2,000	2	—	—	—	—	—	0	—(5)		56,170	(50,854)	5,389	—
Issuance of common stock																						
For services			150	—															303		303	
From cashless exercise of warrants			55	—															26		26	
From exercise of options and warrants			1,060	1															526		527	
For cash			4,000	4															3,354		3,358	
Stock-based compensation																			3,541		3,541	
Warrants issued for services																			75		75	
Stock subscription																	5				5	
Accrued dividend on preferred stock																				(430)	(430)	

Net loss for the year ended December 31, 2011																					(9,171)	(9,171)		
Balance at December 31, 2011	80,036	$ 80	500	$ 1	300	$ —	2,000	$ 2	—	$ —	—	$ —	—	$ 0	$ —	$ —	$63,995	$ (60,455)	$ 3,623	$ —

See accompanying notes to the consolidated financial statements.

International Stem Cell Corporation and Subsidiaries (A Development Stage Company)
Consolidated Statements of Changes in Redeemable Convertible Preferred Stock, Members' Deficit and Stockholders' Equity (Deficit)
From Inception to December 31, 2012 (in thousands)

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock												Note Subscription on Perpetual Preferred	Subscription Receivable on Common Stock	Additional Paid-in Capital	Deficit accumulated during the Development Stage	Total Stockholders' Equity (Deficit)	Members' Deficit
					Series A		Series B		Series C		Series D		Series E		Series F							
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount						
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 period 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)	$ —

See accompanying notes to the consolidated financial statements.

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International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		Inception (August 17, 2001) through December 31, 2012
	2012	2011	
Cash flows from operating activities			
Net loss	$(9,833)	$(9,171)	$ (62,750)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	474	494	1,916
Accretion of discount on notes payable	—	—	103
Accretion of discount on bridge loans	—	—	638
Warrants issued for services	73	75	370
Non-cash compensation expense	2,361	3,540	10,771
Common stock issued for services	59	303	4,356
Change in market value of warrants	(38)	(2,335)	1,357
Amortization of discount on convertible debt	—	—	1,081
Allowance for inventory obsolescence	(40)	61	36
Interest on perpetual preferred stock notes receivable	—	—	(35)
Loss on disposal of fixed assets	56	24	80
Impairment of intangible assets	190	3	193
Changes in operating assets and liabilities:			
(Increase) decrease in accounts receivable	(133)	599	(273)
(Increase) decrease in inventory, net	109	(473)	(1,235)
(Increase) decrease in prepaid assets and other assets	(182)	(46)	(456)
(Increase) decrease in deposits	(4)	24	(20)
Increase (decrease) in accounts payable	192	302	1,077
Increase (decrease) in accrued expenses	(22)	207	1,015
Increase (decrease) in deferred revenue	44	(571)	233
Increase (decrease) in related party payable	5	—	(160)
Net cash used in operating activities	(6,689)	(6,964)	(41,703)
Investing activities			
Purchases of property and equipment	(197)	(565)	(2,686)
Proceeds from sale of property and equipment	7	—	7
Payments for patent licenses and trademarks	(596)	(376)	(2,277)
Net cash used in investing activities	(786)	(941)	(4,956)

Financing activities			
Proceeds from Members' contributions	—	—	2,685
Proceeds from issuance of common stock	2,084	3,358	28,882
Proceeds from issuance of preferred stock	4,941	—	17,202
Proceeds from issuance of convertible promissory notes	—	—	2,100
Proceeds from exercise of warrants and options	4	532	992
Payment of preferred stock dividends	(237)	(430)	(1,320)
Payment of promissory notes	—	—	(2,203)
Payment of offering costs	—	—	(1,760)
Proceeds from convertible debt, advances and loan payable	—	—	1,360
Payment of loan payable	—	—	(625)
Net cash provided by financing activities	6,792	3,460	47,313
Net (decrease) increase in cash and cash equivalents	(683)	(4,445)	654
Cash and cash equivalents, beginning of period	1,337	5,782	—
Cash and cash equivalents, end of period	$ 654	$ 1,337	$ 654

	Year Ended December 31,		Inception (August 17, 2001) through December 31,
	2012	2011	2012
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ —	$—	$ 372
Cash paid for income taxes	$ —	$—	$ 11
Non-cash financing activities:			
Discount on convertible debt from beneficial conversion feature	$ —	$—	$ 641
Discount on convertible debt from warrants	$ —	$—	$ 270
Accretion of preferred stock dividends	$ 93	$—	$ 93
Deemed dividend on preferred stock	$1,375	$—	$ 8,058
Reversal of preferred dividends accreted	$ (93)	$—	$ (93)
Conversion of debt to common stock	$ —	$—	$ 500
Warrants issued for placement agent services	$ —	$—	$ 1,231
Warrants issued with promissory notes	$ —	$—	$ 638
Non-cash sale of preferred stock	$ —	$—	$ 382
Dividend on preferred stock exchanged for note receivable	$ —	$—	$ 95
Conversion of preferred stock	$ —	$—	$ 2
Cashless exercise of warrants	$ —	$ 26	$ 1,847

See accompanying notes to the consolidated financial statements.

International Stem Cell Corporation and Subsidiaries
(A Development Stage Company)

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 our human parthenogenetic stem cell technologies.

Going Concern

The Company continues in the development stage and as such has accumulated losses from inception and expects to incur additional losses in the near future. 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 $580,000 per month, excluding capital expenditures and patent costs averaging $70,000 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 2013. 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. From January through March 15, 2013, to obtain funding for working capital purposes, the Company sold a total of 16,325,000 shares of common stock raising $3,289,000. For further discussion, see Note 11, Subsequent Events.

In October 2012 we filed a registration statement with the SEC that, following effectiveness, would allow us to raise up to $15 million from the sale of common stock and warrants. However, this is a “best efforts” offering and we cannot predict the timing or amount of any funds that we may actually receive.

Basis of Presentation

International Stem Cell Corporation was formed in June 2006. BTHC III, Inc. was a shell company that had no operations and no net assets. For accounting purposes the acquisition has been treated as a recapitalization of BTHC III with ISC California as the accounting acquirer (reverse acquisition). The historical statements prior to June 2006 are those of Lifeline Cell Technology, a wholly-owned subsidiary of ISC California.

The Company is a development-stage company with no revenue generated from its principal operations in therapeutic and biomedical product development through research and development efforts. To date the Company has generated limited and unpredictable revenue to support our core therapeutic 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.

The preparation of financial statements requires that management make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expenses, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Cash Equivalents

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

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, 2012, the Company had an allowance for doubtful accounts totaling $4,000. As of December 31, 2011, the Company did not have an allowance for doubtful accounts as all accounts receivable were deemed collectible.

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 $2,083,000 and $1,677,000 at December 31, 2012 and 2011, 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, 2012 and 2011 amounted to $54,000 and $77,000, respectively, and is included in research and development expense. Accumulated amortization as of December 31, 2012 and 2011 was $449,000 and $395,000, 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 $190,000 and $3,000 of impairments on its long-lived assets during the years ended December 31, 2012 and 2011, 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 expired. LCT contributed 52% and 47% of total revenue in 2012 and 2011, respectively. LSC's revenue accounted for 48% and 53% of total revenue in 2012 and 2011, respectively.

Deferred Revenue

The Company recognizes revenue from LSC products when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller's price to the buyer is fixed or determinable, and collectability is reasonably assured. However, the LSC products have a 30-day right of return guarantee and therefore, the Company defers all revenue associated with these product sales until the 30-day guarantee has expired. In addition, all costs associated with these product sales are reclassified against the deferred revenue account so that the net deferred revenue balance is presented. At December 31, 2012 and 2011, net deferred revenue totaled $233,000 and $189,000, respectively.

Cost of Sales

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

Research and Development Costs

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

Registration Payment Arrangements

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

Fair Value Measurements

On January 1, 2008, the Company adopted authoritative guidance for fair value measurements and fair value disclosures. 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, 2012 (in thousands).

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

The table below sets forth a summary of the fair values of the Company's assets and liabilities as of December 31, 2011 (in thousands).

	Total	Level 1	Level 2	Level 3
ASSETS:				
Cash equivalents	$470	$ 470	$ —	$ —
LIABILITIES:				
Warrants to purchase common stock	$ 38	$ —	$ —	$ 38

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):

	Warrants to purchase common stock
Beginning balance at December 31, 2010	$ 2,400
Issuances	—
Adjustments to estimated fair value	(2,362)
Ending balance at December 31, 2011	38
Issuances	—
Adjustments to estimated fair value due to expiry	(38)
Ending balance at December 31, 2012	$ —

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 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, 2012 and 2011 approximate their fair values because of the short-term nature of those instruments. The fair value of certain warrants was determined at each reporting date in 2011 using the Monte-Carlo valuation methodology; however, all warrants requiring such valuations expired in the first quarter of 2012.

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, 2012, there were 335,000 non-vested restricted shares, 3,500,000 warrants, and 15,407,902 vested and 7,969,230 non-vested stock options outstanding; and at December 31, 2011, there were 6,569,550 warrants, and 11,842,841 vested and 11,141,598 non-vested stock options outstanding. These restricted shares, 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, 2012 and 2011 or the period from inception through December 31, 2012.

Recent Accounting Pronouncements

There were no new accounting pronouncements during the year ended December 31, 2012, as compared to the recent accounting pronouncements described in the Annual Report on Form 10-K for the fiscal year ended December 31, 2011, that are of significance, or potential significance, to the Company.

2. Inventory

Inventories are accounted for using the first-in, first-out (FIFO) method for Lifeline Skin Care products, and specific identification method for Lifeline Cell Technology 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, 2012	December 31, 2011
Raw materials	$ 276	$ 265
Work in process	211	285
Finished goods	748	794
Total	1,235	1,344
Less: allowance for inventory obsolescence	(36)	(76)
Inventory, net	$ 1,199	$ 1,268

3. Property and Equipment

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

	December 31, 2012	December 31, 2011
Machinery and equipment	$ 1,072	$ 969
Computer equipment	347	358
Office equipment	225	217
Leasehold improvements	830	816
	2,474	2,360
Less: accumulated depreciation and amortization	(1,340)	(940)
Property and equipment, net	$ 1,134	$ 1,420

Depreciation expense for the years ended December 31, 2012 and 2011 were $420,000 and $417,000, 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, which terms are summarized below. The additional license fees aggregate a total of $400,000 and were secured by separate convertible promissory notes. The notes bore no interest unless they were not repaid at maturity, in which event they shall thereafter bear interest at an annual rate equal the lesser of 10% or the maximum non-usurious rate legally allowed.

The notes could be converted at the option of ACT into the first equity financing of LCT with cash proceeds in excess of $5,000,000 under the following conditions: i) Upon the consummation of the First Equity Financing; or ii) Immediately prior to the closing of any merger, sale or other consolidation of the Company or of any sale of all or substantially all assets of the Company which occurs prior to the First Equity Financing (an "Acquisition Event"). Notwithstanding the above, and only in the event that a conversion resulting from such Acquisition Event would result in a security not traded on a national stock exchange (including NASDAQ and NASDAQ small cap), upon written notice to the Company not later than five days after the consummation of the Acquisition Event and notice of the Acquisition Event to the holder of the note, the holder may elect to receive payment in cash of the entire outstanding principal of this Note. On February 7, 2013 the Company and ACT entered into Amended and Restated License Agreements for the purpose of completely amending and restating the terms of the license agreements. For further discussion, see Note 11, Subsequent Events.

On December 21, 2007 ACT elected to receive payment and was paid in cash in-lieu of conversion of the notes. As of December 31, 2012, the Company still maintained an obligation to pay royalties and other fees in accordance with the following schedule (in thousands, except percentages and sales thresholds):

	UMass IP	ACT IP	Infigen IP
License fee	$ 150	$ 225	$ 25
Royalty rates	3% to 12%	3% to 10%	3% to 10%
Minimum royalties			
At 12 months	$ 15	$ 15	$ 8
At 24 months	$ 30	$ 38	$ 8
At 36 months	$ 45	$ 61	$ 7
Annually thereafter	$ 60	$ 75	$ 15
Milestone payments			
First commercial product	$ 250	$ 250	$ 250
Sales reaching $5,000,000	$ 500	$ 500	$ 500
Sales reaching $10,000,000	$ 1,000	$ 1,000	$ 1,000

As of December 31, 2012, the total amounts capitalized related to the acquired ACT licenses were $747,000, and $1,336,000 related to other patent acquisition costs.

At December 31, 2012, future amortization expense related to our intangible assets subject to amortization is expected to be as follows (in thousands):

	Amount
2013	$ 60
2014	60
2015	60
2016	60
2017	61
Thereafter	1,272
Total	$ 1,573

5. Advances

Advance

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, 2012, no revenues were realized from this agreement.

	December 31, 2012	December 31, 2011
BioTime, Inc. (in thousands)	$ 250	$ 250

6. Capital Stock

As of December 31, 2006, the Company was authorized to issue 200,000,000 shares of common stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share. In May 2012, the Company amended its Certificate of Incorporation to increase the authorized number of shares of common stock to 300,000,000.

In October 2006, the board of directors of BTHC III approved a stock split of 4.42 shares to 1. As a result of the split, the outstanding common stock of BTHC III increased from 500,000 to 2,209,993 shares. Pursuant to the Share Exchange Agreement, each share of International Stem Cell Corporation common stock was exchanged for one share of BTHC III common stock. All numbers in the financial statements and notes to the financial statements have been adjusted to reflect the stock split for all periods presented.

On December 27, 2006, the Company's Board of Directors and holders of a majority of the outstanding shares approved an increase in the authorized capital stock of the Company to 200,000,000 shares of Common Stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share.

In December 2006, the Company issued 1,350,000 shares of common stock, 350,000 of such shares in consideration for legal consulting services relating to the reverse merger and 1,000,000 shares in consideration for a contract to provide investor relations services which commenced September 1, 2006 for a period of one year.

In January and February 2007, ISC California completed the Brookstreet financing and issued 1,370,000 shares of common stock that was part of a private placement of securities by ISC California during the second half of 2006. The net proceeds from sale finalized in 2007 were $1,157,000 net of cash fees and expenses. In connection with the final settlement in 2007, the selling agent for the private placement received 274,000 additional warrants, which entitled the holder thereof to purchase through February, 2012 that number of shares of common stock for $1.00 each.

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 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. The Series A Preferred has an anti-dilution clause whereby, if the Company issues $1 million or more of equity securities or securities convertible into equity at a price below the respective

exercise prices of the Series A Preferred or the Series A Warrant shall be adjusted downward to equal the price of the new securities. The Series A Preferred has priority on any sale or liquidation of the Company equal to the purchase price of the Series A 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 A Preferred a dividend of the amount of the dividend the Series A Preferred holder would receive if the shares were converted just prior to the dividend declaration.

Each share of Series A Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. On March 30, 2012, the holder of the remaining 500,000 shares of Series A Preferred Stock, converted his shares to a total of 2,000,000 shares of common stock. As of December 31, 2012 and 2011, the Company had zero and 500,000 shares of the Series A Preferred Stock issued and outstanding, respectively. 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, which has been triggered and the new price of the warrants was set at $0.25. The Series B Preferred has a priority (senior to the shares of common stock, but junior to the shares of Series A Preferred 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, 2012 and 2011, the Company had 300,000 shares of the Series B Preferred Stock issued and outstanding.

Fair Value of Warrants Issued with Series A and B Preferred Stock

In accordance with the applicable authoritative guidance, the Company allocated the proceeds of the Series A and B preferred stock according to the value of the convertible preferred stock and the warrants based on their relative fair values. Fair value of the warrants issued with the Series A and Series B were determined using the Black-Scholes valuation model using risk-free interest rates of 3% and 3.37%, volatility rate of 65.0% and 57.9%, term of five years, and exercise price of $0.50.

In connection with the Series A and B rounds of financing, each investor received a warrant to purchase up to a number of shares of common stock for $1.00 per share. Subsequently, the exercise price for those warrants was adjusted down to $0.25 per share.

In August 2008, in accordance with the anti-dilution provisions of the securities, the conversion rates and exercise price were reduced to $0.25. Estimated adjusted fair value of the warrants was determined using the

Black-Scholes valuation model using risk-free interest rate of 3%, volatility rate of 57.9%, term of five years, and exercise price of $0.25. For Series A and Series B, the beneficial conversion feature and warrants were adjusted to $553,000 and $193,000, and $308,000 and $110,000, respectively.

During the second quarter of 2010, the holders of the warrants issued to the purchasers of Series A and B Preferred Stock signed a waiver to give up their rights to the anti-dilution provisions related to the warrants and the exercise price is now fixed at $0.25. The modification to the warrants resulted in the change in classification from a liability to equity and the warrants were re-valued at the date of modification. The re-valuation of the warrants resulted in a reduction in the warrant value of $5,276,000 which was recorded as a credit to income. The adjusted value of the warrants of $804,971 was reclassified to Additional Paid-in Capital, thus eliminating any fair value of outstanding warrant liability as of June 30, 2010.

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 will be convertible into shares of common stock at $0.25 per share. The Series C Preferred had an anti-dilution clause whereby, if the Company issues 250,000 shares or more of equity securities or securities convertible into equity at a price below the conversion price of the Series C Preferred, the conversion price of the Series C Preferred shall be adjusted downward to equal the price of the new securities. The Series C Preferred shall have 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 may be made only after payment in full of the liquidation preferences payable to holders of any shares of Series A 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 shall have the same voting rights as the number of shares of common stock into which it would be convertible on the record date. 700,000 shares of Series C Preferred Stock were sold on August 20, 2008, and 1,300,000 shares of Series C Preferred Stock were sold on September 23, 2008. The beneficial conversion feature for the Series C preferred stock is $720,000. All the Series C Preferred Stock was issued to 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, Vice President of International Stem Cell and a director. As of December 31, 2012 and 2011, we had 2,000,000 shares of the Series C Preferred Stock issued and outstanding. On January 22, 2013, the holders of Series C Preferred Stock converted all of the outstanding shares of Series C Preferred Stock into common stock at $0.25 per share, or a total of 8,000,000 shares of common stock. For further discussion, see Note 11, Subsequent Events.

Series D Preferred Stock

On December 30, 2008, to obtain funding for both working capital and the eventual repayment of the outstanding obligation under the OID Senior Secured Convertible Note with a principal amount of $1,000,000 issued in May 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 sale of the Series D Preferred closed on the following schedule: (1) 10 shares were sold on December 30, 2008; (2) 10 shares were sold on February 5, 2009; and (3) 10 shares were sold on each of March 20, 2009, and June 30, 2009 and 3 shares on September 30, 2009. The Company raised a total of $4,700,000 in the Series D Preferred Stock round. Of the Series D Preferred Stock issued, 10 shares of the Series D Preferred Stock was issued to 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, Vice President of International Stem Cell and a director and 33 shares of the Series D Preferred Stock was issued to our Chief Executive Officer and Co-Chairman of the

Board of Directors Dr. Andrey Semechkin. As of December 31, 2012 and 2011, we had 43 shares of the Series D Preferred Stock issued and outstanding. 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. As of December 31, 2012 and 2011, Series D Preferred Stock dividends of $0 and $108,000 were accrued, respectively. During the years ended December 31, 2012 and 2011, dividends of $237,000 and $429,000 were paid to the holders, respectively.

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 and Series G Preferred Stock are restricted from transferring any shares of Series D Preferred Stock 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 Stock 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 Stock in connection with the offering of securities pursuant to the registration statement originally filed with the Securities and Exchange Commission on October 18, 2012, including the shares issuable on exercise of all warrants registered hereunder. 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 Stock.

Series E Preferred Stock

On June 30, 2009, the Company entered into a definitive agreement with Optimus Capital Partners, LLC ("Investor") for a $5 million investment commitment. The transaction was structured whereby the Company could draw down funds as needed, but had no obligations to make draws or use these funds if not needed. As funds were drawn down, the Company issued Series E Preferred Stock (the "Preferred Stock"). The Preferred Stock was not convertible into common stock and could be redeemed by the Company after one year. Each issue of Preferred Stock was accompanied by the issuance of five-year warrants to purchase common stock at 100% of the closing price of the company's common stock on the day prior to the date the company gave notice of its election to draw funds. The total exercise value of warrants issued equaled 135% of the drawdown amount. Dividends on the Preferred Stock were payable in additional shares of non-convertible Preferred Stock at the rate of 10% per annum. A commitment fee of $250,000, payable in shares of common stock, was made to the Investor. As part of the agreement, the Company filed a registration statement on July 31, 2009, which was declared effective on September 30, 2009. The investment was used to fund operations and working capital needs of the Company and expand its scientific research.

On July 31, 2009, the Company filed a registration statement with the Securities and Exchange Commission as part of the Preferred Stock Purchase Agreement the Company signed on June 30, 2009, between International Stem Cell Corporation and Optimus Capital Partners. Per the agreement, the Company was required to use its best efforts to promptly file (but in no event later than 30 days after the Effective Date) and cause to become effective as soon as possible a Registration Statement for the sale of all Common Shares. Each Registration Statement was required to comply when it became effective, and, as amended or supplemented, at the time of any Tranche Notice Date, Tranche Closing Date, or issuance of any Common Shares, and at all times during which a prospectus was required by the Act to be delivered in connection with any sale of Common Shares, to comply, in all material respects, with the requirements of the Act. The Company is and has been in compliance with all applicable requirements of that agreement.

To create the Series E Preferred sold to the Investor under the Agreement, on June 30, 2009, the Company amended its Certificate of Incorporation by filing a Certificate of Designation of Preferences, Rights and Limitations of the Series E Preferred. The Series E Preferred has priority over the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D 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 E Preferred, plus any accrued but unpaid dividends. From the date of issuance of the Series E Preferred, dividends at the rate per annum of ten percent (10%) of the Purchase Price per share accrued on such shares of Series E Preferred. Following the first anniversary of the issuance date, the Company had the right at its option to redeem the Series E Preferred at an amount equal to the purchase price of the Series E Preferred, plus any accrued but unpaid dividends and plus a redemption premium that declines from 26% (for redemptions between the first and second anniversary of issuance) to zero (for redemptions after the fourth anniversary of issuance).

During 2010, the Company drew $2.4 million of the private equity financing and issued 24 shares of the Series E Preferred Stock, as well as issued 3.7 million warrants which were immediately exercised to purchase 3.7 million shares of the Company's common stock.

Exchange Agreement Series E Preferred Stock

On June 11, 2010, the Company entered into an Exchange Agreement (the "Optimus Exchange Agreement") with Optimus Capital Partners, LLC ("Optimus") under which the Company and Optimus agreed to exchange all of the Series E Preferred Stock previously issued to Optimus pursuant to the Preferred Stock Purchase Agreement dated June 30, 2009 (the "Optimus Preferred Stock Agreement") for all of the promissory notes of Optimus (the "Optimus Notes") issued to the Company in that transaction as payment for shares of the Company's common stock. As part of the exchange transaction, the Company agreed to waive all accrued interest on the Optimus Notes and Optimus agreed to waive all accrued dividends and redemption premiums on the Series E Preferred Stock. The exchange was completed in June 2010 and is discussed in more detail below. Following the return of all shares of Series E Preferred Stock, the Company filed a Certificate of Elimination for the Series E Preferred Stock to remove the powers, preferences, privileges and other rights of the Series E Preferred Stock.

Series F Preferred Stock

On May 4, 2010, International Stem Cell Corporation entered into a Preferred Stock Purchase Agreement with Socius CG II, Ltd., a Bermuda exempted company (the "Investor"), to sell for up to $10,000,000 up to one thousand (1,000) shares of Series F Preferred Stock ("Series F Preferred") at a price of $10,000 per Series F Preferred share. The Company was entitled to determine the time and amount of Series F Preferred to be purchased by the Investor and the Company intended to sell all 1,000 shares of Series F Preferred at a single time. The Series F Preferred could not be converted into common stock and was redeemable by the Company. Under the terms of the Agreement, the Company provided the Investor with a non-refundable fee of 250,000 shares of Company common stock (the "Fee Shares") and issued the Investor a warrant to purchase up to 7,000,000 shares of the Company's common stock, with the exercise price of $1.93 per share, subject to adjustment. The closing of the sale of the Series F Preferred took place in early June 2010.

Exchange Agreement Series F Preferred Stock

On June 11, 2010, the Company, entered into an Exchange Agreement (the "Socius Exchange Agreement") with Socius CG II, Ltd. ("Socius") under which the Company and Socius agreed to exchange all of the Series F Preferred Stock previously issued to Socius pursuant to the Preferred Stock Purchase Agreement dated May 4, 2010 (the "Socius Preferred Stock Agreement") for all of the promissory notes of Socius (the "Socius Notes") issued to the Company in that transaction as payment for shares of the Company's common stock and a $2.5 million note issued in partial payment for the Socius Series F Preferred Stock. As part of the exchange transaction, the Company agreed to waive all accrued interest on the Socius Notes and Socius agreed to waive all accrued dividends and redemption premiums on the Socius Series F Preferred Stock. The exchange was completed in June 2010 and is discussed in more detail below. Following the return of all shares of Series F Preferred Stock, the Company filed a Certificate of Elimination for the Series F Preferred Stock to remove the powers, preferences, privileges and other rights of the Series F Preferred Stock.

Perpetual Preferred Stock

As part of the Series E financing agreement, the Company recorded a Perpetual Preferred Stock equal to the amount of financing received during the year, plus accrued dividends, and Note Receivable equal to 135% of financing received, which represents the amount of warrant coverage per the agreement, plus accrued interest. In accordance with applicable authoritative guidance on Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity, the Company classified the Note Receivable as contra Equity ("Note subscription on Perpetual Preferred Stock") and the Perpetual Preferred Stock as a liability ("Long Term Perpetual Preferred Stock"). The Note Receivable accrued interest at a rate of 2% per year and the Perpetual Preferred Stock accrued a 10% dividend per year. The Company allocated the proceeds of the Series E Preferred Stock according to the value of the preferred stock and the fair value of the warrants. Estimated adjusted fair value of the warrants was determined using the Black-Scholes valuation model using risk-free interest rates ranging from 2.40% to 2.65%, volatility rate ranging from 64.46% to 65.33%, term of five years, and exercise price ranging from $0.56 to $0.74.

As a result of the exchange transactions for the Series E and Series F Preferred stock, all of the Company's obligations under the previously outstanding Series E Preferred Stock and Series F Preferred Stock, which collectively had liquidation preferences of $15 million senior to the shares of the Company's common stock and redemption premiums that started at 26% of the liquidation preference were retired and the Company no longer held any promissory notes of either Socius or Optimus. Because the parties to these exchange transactions determined that the instruments and rights being exchanged were of equivalent value, neither party paid any cash to the other party to the exchange transaction. Therefore, as of June 30, 2010, the Company reversed out all of the Perpetual Preferred Stock and the Notes Receivable related to the Perpetual Preferred Stock.

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 five million (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, Vice President of International Stem Cell 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 A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock on the proceeds from any sale or liquidation of the Company in an amount equal to the purchase price of the Series 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 Stock 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 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, alter the percentage of board seats held by the Series G 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 shares 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 and Series G Preferred Stock 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 and Series G Preferred Stock. Accordingly, dividends from inception in the amount of $93,000 accreted to the carrying value of Series G preferred stock have been reversed. Under the Waiver Agreement, the holders of Series D and Series G Preferred Stock are restricted from transferring any shares of Series D Preferred Stock or Series G Preferred Stock unless the transferee agrees to be bound by the Waiver Agreement. As of December 31, 2012 and 2011, there was no dividend accrued on Series G Preferred Stock. No dividend was paid to the holders during the years ended December 31, 2012 and 2011.

The Company determined that the Series G convertible preferred shares 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 financing in the amount of $59,000 were recorded in the mezzanine equity as well.

The Company determined that as the initial conversion price at the date of close of the Series G transaction was lower than the closing market price on that day (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 convertible 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 convertible shares 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.

Common Stock Purchase Agreement

On December 9, 2010, International Stem Cell Corporation ("ISCO" or the "Company") entered into a Common Stock Purchase Agreement (the "Purchase Agreement") with Aspire Capital Fund, LLC ("Aspire Capital") which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $25.0 million of shares of ISCO common stock (the "Purchase Shares") over the term of the Purchase Agreement. In connection with the execution of the Purchase Agreement, ISCO 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 is not obligated to pay any additional expense reimbursement or any placement agent fees in connection with the transaction.

The Purchase Agreement is intended to provide the Company with a source of capital of up to $25 million over a term of up to three years. The sales price of any shares the Company elects to sell will be known by the Company at the time it makes the decision to sell and will be determined by a formula (described below) based on the price of the Company's stock over the preceding 12 days. As a result, the Company will be able to sell shares on whatever schedule it believes best suits its needs and is not required to sell any shares unless it deems such sales to be beneficial to the Company.

Once the Registration Statement (referred to below) is effective, on any day on which the principal market for shares of ISCO common stock is open for trading, over the three-year term of the Purchase Agreement, the Company has 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 ISCO common stock specified in the Purchase Notice. The number of shares the Company may designate in the Purchase Notice varies based on the closing price of the ISCO common stock on the date of the Purchase Notice. The Company may direct Aspire Capital to purchase up to: (1) 100,000 shares of common stock so long as the closing price is above $0.25; (2) 150,000 shares of common stock so long as the closing price is above $1.25; (3) 200,000 shares of common

stock so long as the closing price is above $1.75 and (4) 300,000 shares of common stock so long as the closing price is above $2.25. The purchase price per share (the "Purchase Price") for each Purchase Notice is 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.

The timing and the number of shares covered by each Purchase Notice are determined in the Company's sole discretion, and the applicable Purchase Price will be determined prior to delivery of any Purchase Notice. The Company may deliver multiple Purchase Notices to Aspire Capital from time to time during the term of the Purchase Agreement, so long as the most recent purchase has been completed. There are no trading volume requirements or restrictions under the Purchase Agreement. Aspire Capital has no right to require any sales by the Company, but is obligated to make purchases as directed in accordance with the Purchase Agreement.

The Purchase Agreement contains customary representations, warranties, covenants, closing conditions and indemnification and termination provisions. The Purchase Agreement may be terminated by the Company at any time, at its discretion, without any cost or penalty. Aspire Capital has agreed not to cause, or engage in any manner whatsoever, any direct or indirect short selling or hedging of ISCO common stock. The Company did not pay any additional amounts to reimburse or otherwise compensate Aspire Capital in connection with the transaction. There are no limitations on use of proceeds, financial or business covenants, restrictions on future funding, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement.

The Company's net proceeds will depend on the Purchase Price and volume and frequency of the Company's sales of shares to Aspire Capital; provided, however, that the maximum aggregate proceeds from sales of shares to Aspire Capital under the Purchase Agreement is $25 million. The Company anticipates that delivery of Purchase Notices will be made subject to market conditions, in light of the Company's capital needs from time to time and under the limitations contained in the Purchase Agreement. The Company expects to use proceeds from sales of shares to Aspire Capital for funding its research and development activities and for general corporate purposes and working capital requirements.

Registration Rights

In connection with the Purchase Agreement, the Company also entered into a Registration Rights Agreement (the "Registration Rights Agreement") with Aspire Capital, dated December 9, 2010. The Registration Rights Agreement provides, among other things, that the Company will register the resale of the commitment fee shares and the shares that have been or may be sold to Aspire Capital (collectively, the "Securities") by Aspire Capital. The Company further agreed to keep the Registration Statement effective and to indemnify Aspire Capital for certain liabilities in connection with the sale of the Securities under the terms of the Registration Rights Agreement.

During the years ended December 31, 2012 and 2011, the Company issued 5,000,000 and 4,000,000, respectively, shares of common stock to Aspire Capital, raising $2.1 million and $3.4 million, respectively, which was used to fund its research and operational activities.

Reserved Shares

At December 31, 2012, the Company had shares of common stock reserved for future issuance as follows:

Options outstanding	23,377,132
Options available for future grant	16,994,980
Convertible preferred stock	38,973,200
Warrants	3,500,000
	82,845,312

7. Related Party Transactions

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

Dividend amounts related to Series D and Series G financing, of $0 and $108,000 were accrued at December 31, 2012 and 2011 respectively, to be payable to X-Master, Inc. and AR Partners LLC, entities affiliated with our Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin and Dr. Ruslan Semechkin, Vice President of International Stem Cell and a director. The Series D dividends were payable to both X-Master, Inc. and our Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin, while Series G Preferred Stock dividends were initially cumulative and payable upon conversion of the Series G shares or upon certain Series G deemed liquidation events to AR Partners, LLC. 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 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. Accordingly, the Company reversed all previously accreted and recorded dividends related to Series G Preferred Stock totaling $93,000. Under the Waiver Agreement, the holders of Series D and Series G Preferred Stock are restricted from transferring any shares of Series D Preferred Stock unless the transferee agrees to be bound by the Waiver Agreement.

During the first quarter of 2011, the Company executed an operating lease for our corporate offices 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. 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, 2012 and 2011, the Company recorded $113,000 and $106,000, 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, 2012, operating loss carryforwards of approximately $43,966,000, which may be applied against future taxable income and will expire in various years through 2032. At December 31, 2011, the Company had operating loss carryforwards of approximately $34,899,000. The increase in carryforwards for the year ended December 31, 2012 is approximately $9,067,000.

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, 2012 and 2011 follows:

	December 31, 2012	December 31, 2011
Statutory federal income tax rate	35%	35%
Permanent items	(8)%	(4)%
State income taxes, net of federal taxes	4%	7%
Change in valuation allowance	(30)%	(41)%
Tax credits claimed	1%	2%
Other	(2)%	1%
Effective income tax rate	0%	0%

The Company files income tax returns in the U.S. federal jurisdiction, and various states. With few exceptions, the Company is no longer subject to U.S. federal, state and local income tax examinations by tax authorities for years before 2007. The Company does not have any material uncertain tax positions as of December 31, 2012 and 2011. The Company does not believe it is reasonably possible that the total amount of unrecognized tax benefits as of December 31, 2012 will materially change in the next 12 months.

The Company may be subject to IRC code section 382 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 Section 382/383 or whether there have been multiple 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 credits 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, 2012	December 31, 2011
Deferred tax assets (liabilities)		
Current deferred tax assets (liabilities)	$ 120	$ 148
Deferred revenues	—	113
Current deferred tax assets	$ 120	$ 261
Valuation allowances	(120)	(261)
Net current deferred tax assets	$ —	$ —
Net operating loss carryforwards	$ 17,150	$ 14,590
Stock based compensation	2,532	1,862
Research and development tax credit	1,206	842
Other	10	—
Non-current deferred tax assets	$ 20,898	$ 17,294
Valuation allowances	(20,898)	(17,294)
Net non-current deferred tax assets	$ —	$ —
Non-current deferred tax liabilities	$ —	$ —
Net deferred tax assets	$ —	$ —

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

	December 31, 2012	December 31, 2011
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 option 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, 2012 and 2011, the Company recognized $2.36 and $3.54 million, as stock-based compensation expense, respectively. Unrecognized compensation expense related to stock options as of December 31, 2012 and 2011 was $3.37 and $7.45 million, respectively, which is expected to be recognized over a weighted average period of approximately 2.2 years and 2.9 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, 2012 and 2011:

	Year ended December 31, 2012	Year ended December 31, 2011
Significant assumptions (weighted-average):		
Risk-free interest rate at grant date	0.94%	1.81%
Expected stock price volatility	121.90%	81%
Expected dividend payout	0%	0%
Expected option life-years based on management's estimate	5.69 years	6.13 years

Exercise Prices	Options Outstanding: Number Outstanding	Options Outstanding: Weighted Average Remaining Contractual Life (Years)	Options Outstanding: Weighted Average Exercise Price	Options Exercisable and vested: Number Exercisable	Options Exercisable and vested: Weighted Average Remaining Contractual Life (Years)	Options Exercisable and vested: Weighted Average Exercise Price
$0.22-$0.50	4,080,800	7.41	$ 0.41	2,239,220	5.86	$ 0.43
$0.51-$0.75	9,365,293	6.95	$ 0.62	6,782,943	6.90	$ 0.62
$0.76-$1.00	2,539,939	3.38	$ 0.99	2,399,939	3.07	$ 1.00
$1.01-$1.25	355,000	8.34	$ 1.10	227,900	8.34	$ 1.10
$1.26-$1.50	1,206,100	7.13	$ 1.31	777,100	6.88	$ 1.33
$1.51-$3.20	5,830,000	7.83	$ 1.94	2,980,800	7.69	$ 1.97
	23,377,132	6.89	$ 0.99	15,407,902	6.32	$ 0.95

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, 2010	10,009,937	$ 0.92
Granted	6,997,500	$ 1.69
Exercised	(300,820)	$ 0.50
Canceled or expired	(1,976,410)	$ 1.17
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

	Number of Shares issued outside the Plan	Weighted Average Exercise Price Per Share
Outstanding at December 31, 2010	10,708,939	$ 0.64
Granted	—	$ —
Exercised	(454,170)	$ 0.59
Canceled or expired	(2,000,537)	$ 0.62
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

Warrants

Brookstreet Securities Corporation

As of December 31, 2006, Brookstreet Securities Corporation ("Brookstreet") had earned 1,976,190 warrants as partial compensation for its services as placement agent for the raising of equity capital. An additional

274,000 warrants were earned by Brookstreet in the first quarter of 2007, for a total of 2,250,190 warrants related to the Company's private placement. In addition, 426,767 warrants were granted to a number of individuals as compensation for services rendered to the Company. Each Warrant entitles the holder thereof to purchase the number of shares of common stock that could be purchased by the dollar amount of the Warrant being exercised at $1.00 in the case of the Brookstreet warrants and $0.80 in the case of the individuals' warrants. The Company recognized the value attributable to the individuals' warrants in the amount of $222,000 and applied it to general and administrative expense. The Company recognized the value attributable to the Brookstreet warrants in the amount of $1.2 million. The Company recognized the Brookstreet warrants as a component of additional paid-in capital with a corresponding reduction in additional paid-in capital to reflect this as a non-cash cost of the offering. Proceeds from the private equity placement totaled $9.9 million and are offset by cash offering costs of $1.5 million as well as the non-cash offering cost of $1.2 million related to the fair value of the Brookstreet warrants. The Company valued the Brookstreet warrants and the warrants issued to the individuals using the Black-Scholes pricing model and the following assumptions: contractual terms of 5 years and 3 years, an average risk free interest rate of 4.58% and 5.13%, a dividend yield of 0% and 0%, and volatility of 71% and 63%, respectively.

The number of warrants converted into common stock by Brookstreet was 484,675 for the completion of the Brookstreet financing and issued 1,370,000 shares of common stock that was part of a private placement of securities by ISC California during the second half of 2006. The net proceeds from the shares whose sale was finalized in 2007 was $1.2 million net of cash fees and expenses. In connection with the final settlement in 2007, the selling agent for the private placement received 274,000 additional warrants, which entitle the holder thereof to purchase that number of shares of common stock for $1.00 each.

During 2008, the Company raised additional capital by issuing Preferred Series A, B, C and D stock. This issuance of the Preferred Series C triggered an anti-dilutive clause in the Brookstreet warrant agreement, where Brookstreet would receive an adjustment downward in the price it pays for converting its warrants and resulted in a deemed dividend of $337,000. Brookstreet earned a total of 2,250,190 warrants in 2006 and 2007 in connection with the Company's private placement. Each Warrant entitles the holder thereof to purchase one share of common stock for $1.00, revalued to $0.56 per warrant. The Company recognized the value attributable to the warrants in the amount of $1.2 million in 2006 and $169,000 in 2007 as a component of additional paid-in capital with a corresponding reduction in additional paid-in capital to reflect the issuance as a non-cash cost of the offering. Prior to 2009, the Company valued the Brookstreet warrants using the Black-Scholes pricing model and the following assumptions: contractual terms of 5 years, an average risk free interest rate of 4.58%, a dividend yield of 0%, and volatility of 70.57%. During 2009, the Company issued a total of 3,510,206 shares of common stock which related to warrants originally issued to Brookstreet. Brookstreet converted a total of 612,267 warrants into 484,675 shares of common stock at an average cashless conversion price of $0.56 per share.

Implementation of Accounting Standards Code (ASC) 815-40-15, (formerly known as EITF 07-5 "Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock Price")

The Accounting Standards Code (ASC) 815-40-15, with an effective date of December 15, 2008, should have been implemented as of January 1, 2009, and in future periods. This Issue applies to any freestanding financial instrument or embedded feature that has all the characteristics of a derivative as described in ASC 815-10-15-83, (previously paragraphs 6–9 of Statement 133) for purposes of determining whether that instrument or embedded feature qualifies for the first part of the scope exception in ASC 815-10-74 (previously paragraph 11(a) of Statement 133). This Issue also applies to any freestanding financial instrument that is potentially settled in an entity's own stock, regardless of whether the instrument has all the characteristics of a derivative for purposes of determining whether the instrument is within the scope of ASC 875-40.

During 2008, the Company issued a Series C Preferred round of financing which triggered the anti-dilution clause in the Brookstreet warrant agreement ("Brookstreet Warrants"). From issuing the Series C Preferred

Stock, the exercise prices of the Brookstreet Warrants were revalued down to $0.56 per warrant. Based on the anti-dilution clause being triggered and the exercise price of the Brookstreet Warrants being revalued downward to $0.56, ASC 815-40-15 should have caused the Brookstreet Warrants to be treated and accounted for as a liability.

The anti-dilution provisions of the Brookstreet Warrants failed the criteria set by this ASC and therefore required reclassification from equity to liability. The reclassification resulted in the requirement to revaluate the Brookstreet Warrants at each reporting period with a corresponding charge or credit to the statement of operations. Valuation of the warrants was estimated using the Monte-Carlo simulation method using the following assumptions: stock price and warrant price as of the valuation date, the Company's historical stock price, interest rate on U.S. treasury notes, dividend rate derived from the Series D Preferred Stock, warrant expiration; simulated as a daily interval and anti-dilution impact if the Company had to raise capital below $0.25 per share. We recorded warrant liabilities of zero and $38,000 as of March 31, 2012 and 2011, respectively. In addition, in the three months ended March 31, 2012 and 2011, we recorded income of $38,000 and $871,000, respectively, in our consolidated statements of operations related to the change in the fair value of warrants.

The 1,721,629 Brookstreet Warrants outstanding as of December 31, 2011 expired on February 14, 2012, and the Company recorded $38,000 to reduce the fair market value of the warrants to zero as they were no longer outstanding as of December 31, 2012.

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 and 1,317,921 warrants remained outstanding at December 31, 2012 and December 31, 2011, respectively. In addition, 1,400,000 warrants were issued to YKA Partners, an affiliated company of our former Co-Chairman of the Board with an exercise price of $0.25 per share, all of which remained outstanding at December 31, 2012 and 2011.

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, 2010, 400,000 warrants related to the Series A Preferred Stock were converted into 800,000 common shares.

As of December 31, 2012 and 2011, there were 1,600,000 and 300,000 warrants related to the Series A Preferred Stock and 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 expire in July 2014.

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. These warrants expired 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 to be 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.

Accordingly, there were warrants for 100,000 shares of common stock at a strike price of $1.50 vested as of December 31, 2011 in connection with the agreement. In addition, as of December 31, 2012, there were 100,000 warrants vested with a strike price of $2.00. The Company valued the warrants issued in connection with the SkinCare Marketing Agreement using the Black-Scholes pricing model and the following assumptions: contractual terms of 5 years, an average risk free interest rate of 0.94%, a dividend yield of 0%, and volatility of 134%.

Share data related to warrant transactions as of December 31, 2012 were as follows:

	Series A	Series B	YKA Loan	BioTime	Bridge Loan & non-cash Grants	Brookstreet	Skin Care Marketing	Total Shares Issuable Upon Exercise of Warrants	Price per Share Range	Weighted average exercise price
Outstanding, December 31, 2010	1,600,000	500,000	1,400,000	30,000	1,380,721	1,760,157	—	6,670,878	$ 0.25-0.80	$ 0.45
2011										
Issued							200,000	200,000	1.50-2.00	1.75
Exercised		(200,000)			(62,800)	(38,528)		(301,328)	0.25-0.80	0.40
Forfeited/Expired								—		
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	$ 0.34

10. Commitments and Contingencies

Leases

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 base rent as of December 31, 2012 was $8,338 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 monthly base rent will increase by 3% annually on the anniversary date of the agreement.

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 administrative purposes. The base rent as of December 31, 2012 was $11,306. The initial lease term expires December 31, 2015 and there is an option for an additional five years.

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 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 covers approximately 4,653 square feet, which was occupied on or about March 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 rent payments in March 2011 once it occupied the facilities, at an initial rate of $5,118 per month. The lease was amended effective July 2011 to account for additional square footage occupied by Company personnel. As such, the initial monthly rate was increased to $9,018 per month. In addition, the monthly base rent will increase by 3% annually on the anniversary date of the agreement. The base rent as of December 31, 2012 was $9,289. The Company is also obligated to pay a portion of the utilities for the building and increases in property tax and insurance. In addition, the Company will pay its proportionate share of the CC&R fees.

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. 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.

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, 2012, are as follows (in thousands):

	Amount
2013	367
2014	363
2015	372
2016	97
2017	3
Total	$ 1,202

Marketing Arrangement and Agreement

The Company signed a Term Sheet ("arrangement") in late 2010 with a third party marketing organization that would serve as a consultant and assist in marketing for Lifeline Skin Care, Inc., ("LSC") a wholly-owned subsidiary of International Stem Cell, to sell its skin care products through various proprietary mailings. As part of the arrangement, there were various phases and objectives to accomplish, one of which was the potential formation of a joint venture in the future between the parties. Based on the arrangement, LSC paid to the marketing organization 40% of net profits (as defined in the arrangement) generated from the proprietary mailings.

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, superseding the terms of the arrangement with the third party marketing organization. According to the agreement, the third party marketing organization will continue to provide assistance to LSC 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 provides for two tranches of common stock warrants to be 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, 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. The Company recognized $73,000, and $75,000 in stock-based compensation from warrants issued for services during the years ended December 31, 2012 and 2011, respectively.

LSC incurred $149,000 and $430,000 as marketing expenses during the years ended December 31, 2012 and 2011, respectively, under the terms of this arrangement and agreement.

Customer Concentration

During the year ended December 31, 2012, one major customer accounted for 13% of our consolidated revenues. During the year ended December 31, 2011, one major customer accounted for approximately 13% of our consolidated revenues, and another major customer accounted for approximately 11% of our consolidated revenues. No other single customer accounted for more than 10% of our revenues for any period presented.

11. Subsequent Events

Amended License Agreements

On February 7, 2013 the Company and Advanced Cell Technology, Inc. ("ACT") entered into Amended and Restated License Agreements (the "Amendment") for the purpose of completely amending and restating the terms of the three Exclusive License Agreements ("ACT IP," "Infigen IP," and "UMass IP" or collectively "Exclusive License Agreement"), as amended on August 25, 2005. Under the terms of the Amendment the Company acquired exclusive world-wide rights to all human therapeutic uses and cosmetic uses from ACT 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, and its 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.

Securities Purchase Agreements and Related Transactions

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 (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.

Immediately before the sale of the shares and warrants under the January 2013 Purchase Agreement described above, the Company issued an additional 8,000,000 shares of common stock upon conversion of all outstanding shares of Series C Preferred Stock held by one investor.

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 (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.

Additional Financing from Aspire Capital Fund, LLC

Under our Common Stock Purchase Agreement with Aspire Capital Fund, LLC ("Aspire Capital"), we may sell from time to time up to an aggregate of $25.0 million of shares of common stock through approximately January 2014. From commencement through December 31, 2012, we sold a total of 9,333,333 shares of common stock to Aspire Capital for an aggregate of $5,942,000. In addition, from January 1, 2013 through March 15, 2013, we sold an additional 1,200,000 shares to Aspire Capital for an aggregate of $264,000.

INTERNATIONAL STEM CELL CORPORATION

17,500,000 Units
Each Unit Consisting of One Share of Common Stock
and
One Series A Warrant to Purchase One Share of Common Stock
and
17,500,000 Series B Warrants, Each to Purchase One Unit

PROSPECTUS

Roth Capital Partners

, 2013

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 securities being registered hereby, other than underwriting discounts and commissions. 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	$ 1,678
Transfer agent's fees and expenses	$ 2,500
Printing and engraving expenses	$ 5,000
Legal fees and expenses including Blue Sky fees	$ 175,000
Accounting fees and expenses	$ 63,000
Miscellaneous expenses	$ 82,822
Total	$ 330,000

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 or services.

These securities were offered and sold by us in reliance upon exemptions from the registration statement requirements provided by Section 4(2) of the Securities Act or Regulation D under the Securities Act as transactions by an issuer not involving a public offering.

From January 1, 2010 through December 31, 2010, the Company issued 1,978,353 shares of common stock to eleven accredited investors for an aggregate of $1,730,000.

From January 1, 2010 through December 31, 2010, as consideration for consulting services, the Company issued 749,167 shares of common stock to eleven consultants.

From May 1, 2010 through December 31, 2010, as part of a Series F Preferred Stock Purchase Agreement, the Company issued shares of Series F Preferred Stock and warrants to purchase a total of 7,000,000 shares of common stock (all of which warrants were exercised) for an aggregate of $7,500,000.

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 January 14, 2011, as consideration for consulting services, the Company issued 150,000 shares of common stock to a consultant.

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 stockolder, for an aggregate of $1,000,000.

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

From the beginning of 2010 through May 31, 2013, the holders of a total of 1,251,445 shares of Series B Preferred Stock and Series A Preferred Stock converted their shares to a total of 12,936,800 shares of common stock. These issuances were 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 of our 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 the beginning of 2010 through May 31, 2013, we issued a total of 6,608,269 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(2) 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.

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

Insofar as indemnification for liabilities arising under the Securities Act 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 July 1, 2013.

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)	July 1, 2013
/s/ Jay Novak Jay Novak	Interim Chief Financial Officer (Principal Financial and Accounting Officer)	July 1, 2013
/s/ James Berglund James Berglund*	Director	July 1, 2013
/s/ Charles J. Casamento Charles J. Casamento*	Director	July 1, 2013
/s/ Paul V. Maier Paul V. Maier*	Director	July 1, 2013
/s/ Ruslan Semechkin Ruslan Semechkin*	Director	July 1, 2013
/s/ Donald A. Wright Donald A. Wright*	Co-Chairman and Director	July 1, 2013

*By: /s/ Andrey Semechkin
Andrey Semechkin
Attorney-in-fact

Table of Contents

EXHIBIT INDEX

Exhibit Number	Description
1.1	Form of Placement Agent Agreement.
3.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.4 of the Registrant's Form 10-SB filed on April 4, 2006, File No. 000-51891).
3.2	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Preliminary Information Statement on Form 14C filed on December 29, 2006, File No. 000-51891).
3.3	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on June 4, 2012, File No. 000-51891).
3.4	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).
4.6	Form of Warrant to Purchase Common Stock (incorporated by reference to Exhibit 4.9 of the Registrant's Form S-1 filed on December 7, 2012, File No. 333-184493).
4.7	Form of Series A Warrant.
4.8	Form of Series B Warrant.
4.9	Form of Placement Agent Warrant.
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).
10.16*	Amended and Restated Employment Agreement with Brian Lundstrom dated May 11, 2011 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on May 13, 2011, File No. 000-51891).
10.17*	Employment offer letter with Kurt May dated June 9, 2011 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 10-Q filed on November 14, 2011, File No. 000-51891).
10.18*	Employment Offer Letter with Linh Nguyen dated September 20, 2011 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on September 27, 2011, File No. 000-51891).

Exhibit Number	Description
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).
10.21	Common Stock Purchase Agreement, dated as of December 9, 2010, by and between the Company and Aspire Capital Fund, LLC (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on December 13, 2010, File No. 000-51891).
10.22	Registration Rights Agreement, dated as of December 9, 2010, by and between the Company and Aspire Capital Fund, LLC (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on December 13, 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).
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).

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Exhibit Number	Description
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).
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	Form of Subscription Agreement.
21.1	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 of the Registrant's Form S-1 filed on December 17, 2010, File No. 333-171233).
23.1	Consent of Mayer Hoffman McCann P.C.
23.2	Consent of Vasquez & Company LLP.
23.3	Consent of DLA Piper LLP (US) (included in exhibit 5.1).
24.1	Power of Attorney.***
101.INS XBRL	Instance Document.**
101.SCH XBRL	Taxonomy Extension Schema.**
101.CAL XBRL	Taxonomy Extension Calculation Linkbase.**
101.DEF XBRL	Taxonomy Extension Definition Linkbase.**
101.LAB XBRL	Taxonomy Extension Label Linkbase**
101.PRE XBRL	Taxonomy Extension Presentation Linkbase.**

* Indicates management contract or compensatory plan.

** Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of Section 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for the purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

*** Previously filed.

Exhibit 1.1

INTERNATIONAL STEM CELL CORPORATION

— Units
Each Unit Consisting
of
One Share of Common Stock
and
One Series A Warrant to Purchase One Share of Common Stock
and
— Series B Warrants, Each to Purchase One Unit

PLACEMENT AGENT AGREEMENT

July —, 2013

Roth Capital Partners, LLC
888 San Clemente Drive
Newport Beach, CA 92660

Dear Sirs:

1. *INTRODUCTION.* International Stem Cell Corporation, a Delaware corporation (the **"Company"**), proposes to issue and sell to the purchasers, pursuant to the terms and conditions of this Placement Agent Agreement (this **"Agreement"**) and the Subscription Agreements in the form of Exhibit A attached hereto (the **"Subscription Agreements"**) entered into with the purchasers identified therein (each a **"Purchaser"** and collectively, the **"Purchasers"**), up to an aggregate of (i) — authorized but unissued shares (the **"Firm Shares"**) of common stock, par value $0.001 per share (the **"Common Stock"**), of the Company, (ii) Series A Warrants (the **"Firm Series A Warrants"**) to purchase an aggregate of up to — authorized but unissued shares of Common Stock (the **"Firm Series A Warrant Shares"**), and (iii) — warrants (the **"Series B Warrants"**) to purchase an aggregate of up to (A) — authorized but unissued shares of Common Stock (the **"Option Shares"**) and (B) Series A Warrants (the **"Option Series A Warrants"**) to purchase up to — authorized but unissued shares of Common Stock (the **"Option Series A Warrant Shares"**). The Firm Shares and the Firm Series A Warrants shall be sold together as units (the **"Firm Units"**), each Firm Unit consisting of one Firm Share and one Firm Series A Warrant to purchase one share of Common Stock. The Firm Units will not be separately issued or certificated and the Firm Shares and the Firm Series A Warrants shall be immediately separable and transferable upon issuance. The Firm Units and the Series B Warrants are hereinafter referred to as the "**Firm Securities**." The Option Shares and the Option Series A Warrants issuable upon the exercise of the Series B Warrants are hereinafter referred to as **"Option Units"**, each Option Unit consisting of one Option Share and one Option Series A Warrant to purchase one share of Common Stock. The Option Units will not be separately issued or certificated and the Option Shares and the Option Series A Warrants shall be immediately separable and transferable upon issuance. The Firm Units and the Option Units are collectively referred to as the **"Units."** The Firm Shares and the Option Shares are collectively referred to as the **"Shares."** The Firm Series A Warrants and the Option Series A Warrants are collectively referred to as the **"Series A Warrants."** The Firm Series A Warrant Shares and the

Option Series A Warrant Shares are collectively referred to as the **"Series A Warrant Shares."** The Series A Warrants and the Series B Warrants are collectively referred to as the **"Warrants."** The Units, the Shares, the Warrants and the Series A Warrant Shares are collectively referred to as the **"Securities."** The form of the Series A Warrant is attached hereto as Exhibit B. The form of the Series B Warrant is attached hereto as Exhibit C. The Company hereby confirms its agreement with Roth Capital Partners, LLC (the "**Placement Agent**") to act as Placement Agent in accordance with the terms and conditions hereof.

2. *AGREEMENT TO ACT AS PLACEMENT AGENT; PLACEMENT OF SECURITIES.* On the basis of the representations, warranties and agreements of the Company herein contained, and subject to all the terms and conditions of this Agreement:

(a) The Company hereby authorizes the Placement Agent to act as its exclusive agent to solicit offers for the purchase of all or part of the Firm Units and the Series B Warrants from the Company in connection with the proposed offering of the Firm Securities (the "**Offering**"). Until the Closing Date (as defined in Section 4 hereof) or earlier upon termination of this Agreement pursuant to Section 9 the Company shall not, without the prior written consent of the Placement Agent, solicit or accept offers to purchase the Firm Securities and the Warrants otherwise than through the Placement Agent.

(b) The Company hereby acknowledges that the Placement Agent has agreed, as agent of the Company, to use its reasonable efforts to solicit offers to purchase the Firm Securities from the Company on the terms and subject to the conditions set forth in the Prospectus (as defined below). The Placement Agent shall use reasonable efforts to assist the Company in obtaining performance by each Purchaser whose offer to purchase Firm Securities has been solicited by the Placement Agent and accepted by the Company, but the Placement Agent shall not, except as otherwise provided in this Agreement, be obligated to disclose the identity of any potential purchaser or have any liability to the Company in the event any such purchase is not consummated for any reason. Under no circumstances will the Placement Agent be obligated to underwrite or purchase any Firm Securities for its own account and, in soliciting purchases of the Firm Securities, the Placement Agent shall act solely as the Company's agent and not as principal.

(c) Subject to the provisions of this Section 2, offers for the purchase of the Firm Securities may be solicited by the Placement Agent as agent for the Company at such times and in such amounts as the Placement Agent deems advisable. The Placement Agent shall communicate to the Company, orally or in writing, each reasonable offer to purchase Firm Securities received by it as agent of the Company. The Company shall have the sole right to accept offers to purchase Firm Securities and may reject any such offer, in whole or in part. The Placement Agent shall have the right, in its discretion reasonably exercised, without notice to the Company, to reject any offer to purchase Firm Securities received by it, in whole or in part, and any such rejection shall not be deemed a breach of this Agreement.

(d) The Firm Securities are being sold to the Purchasers at an aggregate initial public offering price of $— per Firm Unit and Series B Warrant. The purchases of Firm Securities by the Purchasers shall be evidenced by the execution of Subscription Agreements by each of the Purchasers and the Company.

(e) As compensation for services rendered, on the Closing Date (as defined in Section 4 hereof), the Company shall (i) pay to the Placement Agent by wire transfer of immediately available funds to an account or accounts designated by the Placement Agent, a cash fee (the "**Cash Fee**") in an aggregate amount equal to seven percent (7.0%) of the gross proceeds received by the Company from the sale of the Firm Securities on such Closing Date and (ii) issue to the Placement Agent, or as the Placement Agent may otherwise direct, warrants (the "**Agent Warrants**"), in substantially the same form as the Series B Warrants (except that the Agent Warrants shall be exercisable for five years and shall provide for a cashless exercise) with the transfer restrictions described below, entitling the Placement Agent, or its assigns, to purchase additional units (the "**Agent Units**") up to an aggregate of 5% of the Firm Units sold in the Offering; notwithstanding the foregoing, the Placement Agent shall not receive any Cash Fee or any Agent Warrants with respect to gross proceeds from the sale of Firm Securities, or Firm Units issued, to any officer or director of the Company or their affiliates. The shares of Common Stock included in the Agent Units are hereinafter referred to as the "**Agent Shares**" and the Series A Warrants included in the Agent Units are hereinafter referred to as the "**Agent Series A Warrants**." The Agent Units will not be separately issued or certificated and the Agent Shares and the Agent Series A Warrants shall be immediately separable and transferable upon issuance, subject to the restrictions referenced below. The shares of Common Stock issuable upon the exercise of the Agent Series A Warrants are hereinafter referred to as the "**Agent Series A Warrant Shares**." The Agent Warrants, the Agent Units, the Agent Shares, the Agent Series A Warrants and the Agent Series A Warrant Shares are hereinafter collectively referred to as the "**Agent Securities**." The Agent Securities are deemed to be compensation by the Financial Industry Regulatory Authority ("**FINRA**") and may not be sold, transferred, pledged, hypothecated or assigned for a period of 180-days following the effective date of the offering pursuant to FINRA Rule 5110(g)(1). The Cash Fee and the Agent Warrants are hereinafter referred to herein as the "**Placement Fee**". The Placement Agent may retain other brokers or dealers to act as sub-agents on its behalf in connection with the Offering, the fees of which shall be paid out of the Placement Fee.

(f) No Firm Securities which the Company has agreed to sell pursuant to this Agreement and the Subscription Agreements shall be deemed to have been purchased and paid for, or sold by the Company, until such Firm Securities shall have been delivered to the Purchaser thereof against payment by such Purchaser. If the Company shall default in its obligations to deliver Firm Securities to a Purchaser whose offer it has accepted, the Company shall indemnify and hold the Placement Agent harmless against any loss, claim, damage or expense arising from or as a result of such default by the Company in accordance with the procedures set forth in Section 8(c) herein.

(g) The Company agrees that, if until August 9, 2014, the Company decides to engage a placement agent or underwriter to pursue any offering of equity, equity-linked or debt securities, then the Company shall offer the Placement Agent the right of first refusal to act as the exclusive placement agent or lead underwriter and sole book runner, as applicable, for such offering under a separate agreement containing terms and conditions customary for the Placement Agent and mutually agreed upon by the Company and the Placement Agent.

3. *REPRESENTATIONS AND WARRANTIES OF THE COMPANY.* The Company represents and warrants to, and agrees with, the Placement Agent and the Purchasers that:

(a) The Company has prepared and filed in conformity with the requirements of the Securities Act of 1933, as amended (the **"Securities Act"**), and published rules and regulations thereunder (the **"Rules and Regulations"**) adopted by the Securities and Exchange Commission (the **"Commission"**), a Registration Statement (as hereinafter defined) on Form S-1 (File No. 333-184493) covering the offer and sale of the Securities and

the Agent Securities, which became effective on — (the **"Effective Date"**), including any amendments and supplements thereto as may have been required to the date of this Agreement. The term **"Registration Statement"** as used in this Agreement means the registration statement (including all exhibits, financial schedules and all documents and information deemed to be a part of the Registration Statement pursuant to Rule 430A under the Rules and Regulations), as amended and/or supplemented to the date of this Agreement. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the Prospectus (as defined below) has been issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the Rules and Regulations of the Commission, will file the Prospectus, with the Commission pursuant to Rule 424(b) under the Rules and Regulations. The term **"Prospectus,"** as used in this Agreement, means the Prospectus, in the form in which it is to be filed with the Commission pursuant to Rule 424(b) under the Rules and Regulations, or, if the Prospectus is not to be filed with the Commission pursuant to Rule 424(b), the Prospectus in the form included as part of the Registration Statement as of the Effective Date, except that if any revised prospectus shall be provided to the Placement Agent by the Company for use in connection with the offering and sale of the Securities which differs from the Prospectus (whether or not such revised prospectus is required to be filed by the Company pursuant to Rule 424(b) under the Rules and Regulations), the term **"Prospectus"** shall refer to such revised prospectus from and after the time it is first provided to the Placement Agent for such use. Any preliminary prospectus or prospectus subject to completion included in the Registration Statement or filed with the Commission pursuant to Rule 424 under the Rules and Regulations is hereafter called a **"Preliminary Prospectus."** Any reference herein to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-1 which were filed under the Securities Exchange Act of 1934, as amended (the **"Exchange Act"**), on or before the last to occur of the Effective Date, the date of the Preliminary Prospectus, or the date of the Prospectus, and any reference herein to the terms "amend," "amendment," or "supplement" with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include (i) the filing of any document under the Exchange Act after the Effective Date, the date of such Preliminary Prospectus or the date of the Prospectus, as the case may be, which is incorporated by reference and (ii) any such document so filed. If the Company has filed an abbreviated registration statement to register additional securities pursuant to Rule 462(b) under the Rules and Regulations (the **"462(b) Registration Statement"**), then any reference herein to the Registration Statement shall also be deemed to include such 462(b) Registration Statement.

(b) As of the Applicable Time (as defined below) and as of the Closing Date, neither (i) any General Use Free Writing Prospectus (as defined below) issued at or prior to the Applicable Time, and the Pricing Prospectus (as defined below) and the information included on Schedule A hereto, all considered together (collectively, the **"General Disclosure Package"**), (ii) any individual Limited Use Free Writing Prospectus (as defined below), nor (iii) the bona fide electronic road show (as defined in Rule 433(h)(5) under the Rules and Regulations), if any, that has been made available without restriction to any person, when considered together with the General Disclosure Package, included or will include, any

untrue statement of a material fact or omitted or as of the Closing Date will omit, to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however,* that the Company makes no representations or warranties as to information contained in or omitted from any documents contained in the General Disclosure Package, in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17). As used in this paragraph (b) and elsewhere in this Agreement:

"**Applicable Time**" means —:00 —.M., New York time, on the date of this Agreement.

"**General Use Free Writing Prospectus**" means any Issuer Free Writing Prospectus that is identified on Schedule A to this Agreement.

"**Issuer Free Writing Prospectus**" means any "issuer free writing prospectus," as defined in Rule 433 under the Rules and Regulations relating to the Securities in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) under the Rules and Regulations.

"**Limited Use Free Writing Prospectuses**" means any Issuer Free Writing Prospectus that is not a General Use Free Writing Prospectus.

"**Pricing Prospectus**" means the Preliminary Prospectus, as amended and supplemented immediately prior to the Applicable Time, including any document incorporated by reference therein.

(c) No order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus relating to the Offering has been issued by the Commission, and no proceeding for that purpose or pursuant to Section 8A of the Securities Act has been instituted or threatened by the Commission, and each Preliminary Prospectus (if any), at the time of filing thereof, conformed in all material respects to the requirements of the Securities Act and the Rules and Regulations, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however,* that the Company makes no representations or warranties as to information contained in or omitted from any Preliminary Prospectus, in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(d) At the time the Registration Statement became or becomes effective, at the date of this Agreement and at the Closing Date, the Registration Statement conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements

therein not misleading; the Prospectus, at the time the Prospectus was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; *provided, however,* that the foregoing representations and warranties in this paragraph (d) shall not apply to information contained in or omitted from the Registration Statement or the Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(e) Each Issuer Free Writing Prospectus, if any, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Firm Securities or until any earlier date that the Company notified or notifies the Placement Agent as described in Section 5(e), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, Pricing Prospectus or the Prospectus, including any document incorporated by reference therein that has not been superseded or modified, or did not, does not or will not include an untrue statement of a material fact or did not, does not or will not omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(f) The documents incorporated by reference in the Prospectus, if any, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and none of such documents contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(g) The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the Offering other than any Pricing Prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 5(b) below. The Company is not an "ineligible issuer" in connection with the

offering pursuant to Rules 164, 405 and 433 under the Securities Act. The Company will file with the Commission all Issuer Free Writing Prospectuses (other than a "road show," as defined in Rule 433(d)(8) under the Rules and Regulations), if any, in the time and manner required under Rules 163(b)(2) and 433(d) under the Rules and Regulations.

(h) The Company and each Subsidiary (as defined below) has been duly organized and is validly existing in good standing (or the foreign equivalent thereof) under the laws of each of their respective jurisdictions of organization. The Company and each Subsidiary is duly qualified to do business and is in good standing in each jurisdiction in which its ownership or lease of property or the conduct of its business requires such qualification and has all power and authority necessary to own or hold its properties and to conduct the business in which it is engaged, except where the failure to so qualify or have such power or authority (i) would not have, singularly or in the aggregate, a material adverse effect on the condition (financial or otherwise), results of operations, assets or business or prospects of the Company or any Subsidiary, taken as a whole, or (ii) impair in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by the Agreement, the Registration Statement, the General Disclosure Package or the Prospectus (any such effect as described in clauses (i) or (ii), a **"Material Adverse Effect"**). The Company owns or controls, directly or indirectly, only the following corporations, partnerships, limited liability partnerships, limited liability companies, associations or other entities: International Stem Cell Corporation, a California corporation, Lifeline Skin Care, Inc., a California corporation, and Lifeline Cell Technology, LLC, a California limited liability company (each, a "**Subsidiary**" and, collectively, the "**Subsidiaries**").

(i) The Company has the full right, power and authority to enter into this Agreement, the Warrants, each of the Subscription Agreements, the Agent Warrants and the Agent Series A Warrants and to perform and to discharge its obligations hereunder and thereunder; and each of this Agreement, the Warrants, each of the Subscription Agreements, the Agent Warrants and the Agent Series A Warrants have been duly authorized, executed and delivered by the Company, and constitutes a valid and binding obligation of the Company enforceable in accordance with its terms, except as may be limited by bankruptcy, insolvency, reorganization or other similar laws affecting the enforcement of creditors' rights generally and by general principles of equity.

(j) The Firm Shares, the Firm Series A Warrants and the Series B Warrants to be issued and sold by the Company to the Purchasers hereunder and under the Subscription Agreements and the Firm Series A Warrant Shares have been duly authorized, and the Firm Shares, when issued and delivered against payment therefor as provided herein and in the Subscription Agreements and the Firm Series A Warrant Shares, when issued and delivered upon the due exercise of the Firm Series A Warrants, will be validly issued, fully paid and non-assessable and free of any preemptive or similar rights and will conform to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus. The Option Shares and the Option Series A Warrants issuable upon the due exercise of the Series B Warrants have been duly authorized, and the Option Shares, when issued and delivered upon the due exercise of the Series B Warrants and the Option Series A Warrant Shares, when issued and delivered upon the due exercise of the Option

Series A Warrants, will be validly issued, fully paid and non-assessable and free of any preemptive or similar rights and will conform to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus. The Agent Securities have been duly authorized, and the Agent Shares, when issued and delivered upon the due exercise of the Agent Warrants and the Agent Series A Warrant Shares, when issued and delivered upon the due exercise of the Agent Series A Warrants, will be validly issued, fully paid and non-assessable and free of any preemptive or similar rights and will conform to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus. The Warrants and the Agent Warrants conform to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus. The Company has reserved a sufficient number of authorized but unissued shares of Common Stock for the full exercise of the Warrants and the Agent Warrants in accordance with their respective terms.

(k) The Company has an authorized capitalization as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, have been issued in compliance with United States federal and state securities laws, and conform to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus. As of May 31, 2013, there were — shares of Common Stock issued and outstanding and an aggregate of — shares of Common Stock were issuable upon the exercise of all options and warrants and conversion of all convertible securities, including the Series B, Series D and Series G Preferred Stock, outstanding as of such date. Since such date, the Company has not issued any securities, other than Common Stock of the Company issued pursuant to the exercise of stock options previously outstanding under the Company's stock incentive plans or the issuance of restricted Common Stock pursuant to stock incentive plans. All of the Company's options, warrants and other rights to purchase, exchange or convert any securities for shares of the Company's capital stock have been duly authorized and validly issued and were issued in compliance with United States federal and state securities laws. None of the outstanding shares of Common Stock was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding shares of capital stock, options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any Subsidiary other than those described above or accurately described in the Registration Statement, the General Disclosure Package and the Prospectus. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in the Registration Statement, the General Disclosure Package and the Prospectus, accurately and fairly present the information required to be shown with respect to such plans, arrangements, options and rights.

(l) All the outstanding shares of capital stock or ownership interests of each Subsidiary have been duly authorized and validly issued, are fully paid and non-assessable and, except to the extent set forth in the Registration Statement, the General Disclosure Package and the Prospectus, are owned by the Company directly or indirectly through one

or more wholly-owned Subsidiaries, free and clear of any claim, lien, encumbrance, security interest, restriction upon voting or transfer or any other claim of any third party.

(m) The execution, delivery and performance of this Agreement, the Subscription Agreements, the Warrants and the Agent Warrants by the Company, the issue and sale of the Securities and the Agent Securities by the Company and the consummation of the transactions contemplated hereby and thereby will not (with or without notice or lapse of time or both): (i) conflict with or result in a breach or violation of any of the terms or provisions of, constitute a default or Debt Repayment Triggering Event (as defined below) under, give rise to any right of termination or other right or the cancellation or acceleration of any right or obligation or loss of a benefit under, or give rise to the creation or imposition of any lien, encumbrance, security interest, claim or charge upon any property or assets of the Company or any Subsidiary pursuant to any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any Subsidiary is a party or by which the Company or any Subsidiary is bound or to which any of the property or assets of the Company or any Subsidiary is subject (each, a "**Contract**" and, collectively, the "**Contracts**"); (ii) result in any violation of the provisions of the charter or by-laws (or analogous governing instruments, as applicable) of the Company or any Subsidiary; or, (iii) to the Company's knowledge, result in the violation of any law, statute, rule, regulation, judgment, order or decree of any court or governmental agency or body, domestic or foreign, having jurisdiction over the Company or any Subsidiary or any of their properties or assets, except with respect to clauses (i) and (iii), any breaches, violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect. A "**Debt Repayment Triggering Event**" means any event or condition that gives, or with the giving of notice or lapse of time would give the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any Subsidiary.

(n) Except for the registration of the Securities and the Agent Securities under the Securities Act, and such consents, approvals, authorizations, registrations or qualifications as may be required under the Exchange Act and applicable state or foreign securities laws, the Financial Industry Regulatory Authority ("**FINRA**") and the OTCQB maintained by OTC Markets Group Inc. (the **"OTCQB"**) in connection with the offering and sale of the Securities by the Company, no consent, approval, authorization or order of, or filing, qualification or registration with, any court or governmental agency or body, foreign or domestic, which has not been made, obtained or taken and is not in full force and effect, is required for the execution, delivery and performance of this Agreement, the Subscription Agreements, the Warrants and the Agent Warrants by the Company, the offer or sale of the Securities or the Agent Securities or the consummation of the transactions contemplated hereby or thereby.

(o) Mayer Hoffman McCann P.C., who has certified certain financial statements and related schedules included in the Registration Statement, the General Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Rules and Regulations and the Public Company Accounting Oversight Board (United States) (the "**PCAOB**"). Except as pre-approved in accordance with the

requirements set forth in Section 10A of the Exchange Act, Mayer Hoffman McCann P.C. has not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

(p) The financial statements, together with the related notes and schedules, included in the Registration Statement, the General Disclosure Package and the Prospectus fairly present in all material respects the financial position and the results of operations and changes in financial position of the Company and its Subsidiaries and other consolidated entities at the respective dates or for the respective periods therein specified. Such statements and related notes and schedules have been prepared in accordance with the generally accepted accounting principles in the United States ("**GAAP**") applied on a consistent basis throughout the periods involved except as may be set forth in the related notes included or incorporated by reference in the General Disclosure Package. The financial statements, together with the related notes and schedules, included in the Registration Statement, the General Disclosure Package and the Prospectus comply in all material respects with the Securities Act, the Exchange Act, and the Rules and Regulations and the rules and regulations under the Exchange Act. No other financial statements or supporting schedules or exhibits are required by the Securities Act or the Rules and Regulations to be described or included in the Registration Statement, the General Disclosure Package or the Prospectus. There is no pro forma or as adjusted financial information which is required to be included in the Registration Statement, the General Disclosure Package, or the Prospectus in accordance with the Securities Act and the Rules and Regulations which has not been included as so required. Any pro forma and pro forma as adjusted financial information and the related notes included in the Registration Statement, the General Disclosure Package and the Prospectus have been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Rules and Regulations and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein.

(q) Neither the Company nor any Subsidiary has sustained, since the date of the latest audited financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Registration Statement, the General Disclosure Package and the Prospectus; and, since such date, there has not been any change in the capital stock or long-term debt of the Company or any Subsidiary or any material adverse changes, or any development involving a prospective material adverse change, in or affecting the business, assets, management, financial position, prospects, stockholders' equity or results of operations of the Company or any Subsidiary, otherwise than as set forth or contemplated in the Registration Statement, the General Disclosure Package and the Prospectus.

(r) Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, there is no legal or governmental action, suit, claim or proceeding pending to which the Company or any Subsidiary is a party or of which any property or

assets of the Company or any Subsidiary is the subject which is required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company or any Subsidiary could have a Material Adverse Effect or prevent the consummation of the transactions contemplated hereby; and to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(s) Neither the Company nor any Subsidiary is in (i) violation of its charter or by-laws (or analogous governing instrument, as applicable), (ii) default in any respect, and no event has occurred which, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it is bound or to which any of its property or assets is subject or (iii) to the Company's knowledge, violation of any law, ordinance, governmental rule, regulation or court order, decree or judgment to which it or its property or assets is subject except, in the case of clauses (ii) and (iii) of this paragraph(s), for any violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect.

(t) The Company and each Subsidiary possesses all licenses, certificates, authorizations and permits issued by, and have made all declarations and filings with, the appropriate local, state, federal or foreign regulatory agencies or bodies which are necessary or desirable for the ownership of its properties or the conduct of their respective businesses as described in the Registration Statement, the General Disclosure Package and the Prospectus (collectively, the "**Governmental Permits**") except where any failures to possess or make the same, singularly or in the aggregate, would not have a Material Adverse Effect. The Company and each Subsidiary is in compliance with all such Governmental Permits, and all such Governmental Permits are valid and in full force and effect, except where any non-compliance or the validity or failure to be in full force and effect would not, singularly or in the aggregate, have a Material Adverse Effect. To the Company's knowledge, all such Governmental Permits are free and clear of any restriction or condition that are in addition to, or materially different from those normally applicable to similar licenses, certificates, authorizations and permits. Neither the Company nor any Subsidiary has received notification of any revocation or modification (or proceedings related thereto) of any such Governmental Permit and, to the Company's knowledge, there is no reason to believe that any such Governmental Permit will not be renewed.

(u) Neither the Company nor any Subsidiary is or, after giving effect to the offering of the Securities and the application of the proceeds thereof as described in the Registration Statement, the General Disclosure Package and the Prospectus, will become an "investment company" within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(v) Neither the Company nor any Subsidiary, nor to the Company's knowledge, any of the Company's and any Subsidiary's officers, directors or affiliates has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of

any security of the Company, or which caused or resulted in, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(w) To the best of the Company's knowledge, the Company and each Subsidiary owns or possesses the right to use all patents, trademarks, trademark registrations, service marks, service mark registrations, trade names, copyrights, licenses, inventions, software, databases, know-how, Internet domain names, trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures, and other intellectual property (collectively, **"Intellectual Property"**) necessary to carry on their respective businesses as currently conducted, and as proposed to be conducted and described in the Registration Statement, the General Disclosure Package and the Prospectus, and the Company is not aware of any claim to the contrary or any challenge by any other person to the rights of the Company or any Subsidiary with respect to the foregoing except for those that could not have a Material Adverse Effect. The Intellectual Property licenses described in the Registration Statement, the General Disclosure Package and the Prospectus are valid, binding upon, and enforceable by or against the parties thereto in accordance with their terms. The Company and each Subsidiary has complied in all material respects with, and is not in breach nor has received any asserted or threatened claim of breach of, any Intellectual Property license, and the Company has no knowledge of any breach or anticipated breach by any other person to any Intellectual Property license. To the best of the Company's knowledge, the Company's and each Subsidiary's business as now conducted and as proposed to be conducted does not and will not infringe or conflict with any valid patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses or other Intellectual Property or franchise right of any person, except for any such acts that would not have a Material Adverse Effect. No claim has been made against the Company or any Subsidiary alleging the infringement by the Company or any Subsidiary of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person. The Company and each Subsidiary has taken all reasonable steps to protect, maintain and safeguard its rights in all Intellectual Property, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated by this Agreement will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require the consent of any other person in respect of, each of the Company's and each Subsidiary's right to own, use, or hold for use any of the Intellectual Property as owned, used or held for use in the conduct of its business as currently conducted. The Company and each Subsidiary has at all times complied in all material respects with all applicable laws relating to privacy, data protection, and the collection and use of personal information collected, used, or held for use by the Company or any Subsidiary in the conduct of the Company's or any Subsidiary's business. No claims have been asserted or threatened against the Company or any Subsidiary alleging a violation of any person's privacy or personal information or data rights and the consummation of the transactions contemplated hereby will not breach or otherwise cause any violation of any law related to privacy, data protection, or the collection and use of personal information collected, used, or held for use by the Company or any Subsidiary in the conduct of the Company's or any Subsidiary's business. The Company and each Subsidiary takes reasonable measures to ensure that such information is protected against unauthorized access, use, modification, or other misuse.

(x) The Company and each Subsidiary has good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and any Subsidiary, free and clear of all liens, encumbrances, security interests, claims and defects that do not, singularly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any Subsidiary; and all of the leases and subleases material to the business of the Company or any Subsidiary, and under which the Company or any Subsidiary holds properties described in the Registration Statement, the General Disclosure Package and the Prospectus, are in full force and effect, and neither the Company nor any Subsidiary has received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or any Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(y) No organized labor disturbance by the employees of the Company or any Subsidiary exists or, to the best of the Company's knowledge, is imminent, and the Company has no actual knowledge of any existing or imminent labor disturbance by the employees of any of its or any Subsidiary's principal suppliers, manufacturers, customers or contractors, that could reasonably be expected, singularly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or any Subsidiary plans to terminate employment with the Company or any Subsidiary.

(z) No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder (**"ERISA"**), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the **"Code"**)) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan of the Company or any Subsidiary which could, singularly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company or any Subsidiary is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and each Subsidiary has not incurred and could not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension plan for which the Company or any Subsidiary would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification to the extent such loss would have a Material Adverse Effect.

(aa) To the best of the Company's knowledge, the Company and each Subsidiary is in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to its businesses

(**"Environmental Laws"**), except where the failure to comply would not, singularly or in the aggregate, have a Material Adverse Effect. There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances regulated by Environmental Laws (**"Hazardous Substances"**) by or caused by the Company or any Subsidiary (or, to the Company's knowledge and without independent investigation, any other entity for whose acts or omissions the Company or any Subsidiary is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any Subsidiary, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which would not have, singularly or in the aggregate with all such violations and liabilities, a Material Adverse Effect; to the Company's actual knowledge and without independent investigation, there has been no disposal, discharge, emission or other release onto property now leased by the Company or any Subsidiary or into the environment surrounding such property of any Hazardous Substance, except for any such disposal, discharge, emission, or other release in violation of Environmental Laws which would not have, singularly or in the aggregate with all such discharges and other releases, a Material Adverse Effect.

(bb) The Company and each Subsidiary (i) has timely filed (or filed an extension to file) all necessary federal, state, local and foreign tax returns, and all such filed returns were true, complete and correct, (ii) has paid all federal, state, local and foreign taxes, assessments, governmental or other charges due and payable for which it is liable, including, without limitation, all sales and use taxes and all taxes which the Company or any Subsidiary is obligated to withhold from amounts owing to employees, creditors and third parties, and (iii) does not have any tax deficiency or claims outstanding or assessed or, to the best of its knowledge, proposed against any of them, except those, in each of the cases described in clauses (i), (ii) and (iii) of this paragraph (bb), that would not, singularly or in the aggregate, have a Material Adverse Effect. The Company and each Subsidiary has not engaged in any transaction which is a corporate tax shelter or which could be characterized as such by the Internal Revenue Service or any other taxing authority. The accruals and reserves on the books and records of the Company in respect of tax liabilities for any taxable period not yet finally determined are adequate to meet any assessments and related liabilities for any such period, and since December 31, 2008, the Company and each Subsidiary has not incurred any liability for taxes other than in the ordinary course.

(cc) The Company and each Subsidiary carries, or is covered by, insurance provided by recognized, financially sound and reputable institutions with policies in such amounts and covering such risks as is adequate in the good faith opinion of Company management for the conduct of their respective businesses and the value of its properties and, to its knowledge, as is customary for companies engaged in similar businesses in similar industries. The Company has no reason to believe that it or any Subsidiary will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct their respective businesses as now conducted and at a cost that would not result in a Material

Adverse Effect. Neither the Company nor any Subsidiary has been denied any insurance coverage that it has sought or for which it has applied.

(dd) The Company and each Subsidiary maintains a system of internal accounting and other controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(ee) The minute books of the Company and each Subsidiary have been made available to the Placement Agent and counsel for the Placement Agent, and such books (i) contain a complete summary in all material respects of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company and each Subsidiary (or analogous governing bodies and interest holders, as applicable), since January 1, 2010 through the date of the latest meeting and action, and (ii) accurately, in all material respects, reflect all transactions referred to in such minutes.

(ff) There is no franchise, lease, contract, agreement or document required by the Securities Act or by the Rules and Regulations to be described in the Registration Statement, the General Disclosure Package and the Prospectus or a document incorporated by reference therein or to be filed as an exhibit to the Registration Statement or a document incorporated by reference therein which is not described or filed therein as required; and all descriptions of any such franchises, leases, contracts, agreements or documents contained in the Registration Statement, the General Disclosure Package and the Prospectus or in a document incorporated by reference therein are accurate and complete descriptions of such documents in all material respects. Other than as described in the Registration Statement, the General Disclosure Package and the Prospectus, no such franchise, lease, contract or agreement has been suspended or terminated for convenience or default by the Company or any Subsidiary or any of the other parties thereto, and neither the Company nor any Subsidiary has received notice nor does the Company have any other knowledge of any such pending or threatened suspension or termination, except for such pending or threatened suspensions or terminations that would not reasonably be expected to, singularly or in the aggregate, have a Material Adverse Effect.

(gg) No relationship, direct or indirect, exists between or among the Company and any Subsidiary on the one hand, and the directors, officers, stockholders (or analogous interest holders), customers or suppliers of the Company or any Subsidiary or any of their affiliates on the other hand, which is required to be described in the Registration Statement, the

General Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(hh) No person or entity has the right to require registration of shares of Common Stock or other securities of the Company or any Subsidiary because of the filing or effectiveness of the Registration Statement or otherwise, except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, there are no persons with registration rights or similar rights to have any securities registered by the Company or any Subsidiary under the Securities Act.

(ii) Neither the Company nor any Subsidiary owns any "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the **"Federal Reserve Board"**), and none of the proceeds of the sale of the Securities will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the Securities to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

(jj) Except for this Agreement, neither the Company nor any Subsidiary is a party to any contract, agreement or understanding with any person that would give rise to a valid claim against the Company or the Placement Agent for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares and the Warrants or any transaction contemplated by this Agreement, the Registration Statement, the General Disclosure Package or the Prospectus.

(kk) No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the Registration Statement, the General Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(ll) The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(g) of the 1934 Act and is quoted on OTCQB, and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the 1934 Act or removal from quotation of the Common Stock from the OTCQB, nor has the Company received any notification that the SEC, the OTCQB or the Financial Industry Regulatory Authority, Inc. is contemplating terminating such registration or quotation. The Company has obtained or will have obtained, or has made or will have made, as applicable, all necessary consents, approvals, authorizations or orders of, or filing, notification or registration with, the OTCQB required for the quotation and trading of the Shares and the Warrant Shares on the OTCQB.

(mm) The Company is in material compliance with all applicable provisions of the Sarbanes-Oxley Act of 2002 and all applicable rules and regulations promulgated thereunder or implementing the provisions thereof (the "**Sarbanes-Oxley Act**").

(nn) Neither the Company nor any Subsidiary, nor, to the best of the Company's knowledge, any employee or agent of the Company or any Subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state, local or foreign office in violation of any law (including the Foreign Corrupt Practices Act of 1977, as amended) or of the character required to be disclosed in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein.

(oo) There are no transactions, arrangements or other relationships between and/or among the Company or any Subsidiary, any of their affiliates (as such term is defined in Rule 405 of the Securities Act) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's or any Subsidiary's liquidity or the availability of or requirements for their capital resources required to be described in the Registration Statement, the General Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required.

(pp) There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company to or for the benefit of any of the officers or directors of the Company or any of their respective family members, except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus.

(qq) The statistical and market related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate, and such data agree with the sources from which they are derived.

(rr) The operations of the Company and each Subsidiary are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the **"Money Laundering Laws"**), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Money Laundering Laws is pending, or to the best knowledge of the Company, threatened.

(ss) Neither the Company nor any Subsidiary nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (**"OFAC"**); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other person or entity, for the purpose of

financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(tt) Neither the Company, nor any Subsidiary, nor any of their affiliates (within the meaning of FINRA Rule 5121(b)(1)(a)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section l(ee) of the By-laws of FINRA) of, any member firm of FINRA.

(uu) All preclinical and clinical studies conducted by or on behalf of the Company or any Subsidiary that are material to the Company and its Subsidiaries, taken as a whole, are described in the Registration Statement, the General Disclosure Package and the Prospectus. To the Company's knowledge, after reasonable inquiry, the clinical and preclinical studies conducted by or on behalf of the Company or any Subsidiary that are described in the Registration Statement, the General Disclosure Package or the Prospectus or the results of which are referred to in the Registration Statement, the General Disclosure Package or the Prospectus were and, if still ongoing, are being conducted in material compliance with all laws and regulations applicable thereto in the jurisdictions in which they are being conducted and with all laws and regulations applicable to preclinical and clinical studies from which data will be submitted to support marketing approval. The descriptions in the Registration Statement, the General Disclosure Package and the Prospectus of the results of such studies are accurate and complete in all material respects and fairly present the data derived from such studies, and the Company has no knowledge of any large well-controlled clinical study the aggregate results of which are inconsistent with or otherwise call into question the results of any clinical study conducted by or on behalf of the Company or any Subsidiary that are described in the Registration Statement, the General Disclosure Package or the Prospectus or the results of which are referred to in the Registration Statement, the General Disclosure Package or the Prospectus. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not received any written notices or statements from the United States Food and Drug Administration (the "**FDA**"), the European Medicines Agency ("**EMEA**") or any other governmental agency or authority imposing, requiring, requesting or suggesting a clinical hold, termination, suspension or material modification for or of any clinical or preclinical studies that are described in the Registration Statement, the General Disclosure Package or the Prospectus or the results of which are referred to in the Registration Statement, the General Disclosure Package or the Prospectus General Disclosure Package. The Company has not received and is otherwise not aware of any notices, correspondence or other communication from the FDA, the EMEA or other governmental regulatory agency or subdivision thereof, or any institutional or ethical review boards, asserting non-compliance with any applicable statutes, rules, regulations, orders, or other laws.

(vv) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not received any written notices or statements from the FDA, the EMEA or any other governmental agency, and otherwise has no knowledge or reason to believe, that (i) any new drug application or marketing authorization application for any product or potential product of the Company or any Subsidiary is or has been rejected or determined to be non-approvable or conditionally approvable; (ii) a delay in time for review and/or approval of a marketing authorization application or marketing approval application in

any other jurisdiction for any product or potential product of the Company or any Subsidiary is or may be required, requested or being implemented; (iii) one or more clinical studies for any product or potential product of the Company or any Subsidiary shall or may be requested or required in addition to any clinical studies described in the Registration Statement, the General Disclosure Package or the Prospectus as a precondition to or condition of issuance or maintenance of a marketing approval for such product or potential product; (iv) any license, approval, permit or authorization to conduct any clinical trial of or market any product or potential product of the Company or any Subsidiary has been, will be or may be suspended, revoked, modified or limited, except in the cases of clauses (i), (ii), (iii) and (iv) where such rejections, determinations, delays, requests, suspensions, revocations, modifications or limitations would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(ww) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, to the Company's knowledge, any preclinical and clinical testing, application for marketing approval of, manufacture, distribution, promotion and sale of the products and potential products of the Company or any Subsidiary is in compliance, in all material respects, with all laws, rules and regulations applicable to such activities, including without limitation applicable good laboratory practices, good clinical practices and good manufacturing practices, except for such non-compliance as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The descriptions of the results of such tests and trials contained in the Registration Statement, the General Disclosure Package and the Prospectus are accurate in all material respects. Except to the extent disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not received notice of adverse finding, warning letter or clinical hold notice from the FDA or any non-U.S. counterpart of any of the foregoing, or any untitled letter or other correspondence or notice from the FDA or any other governmental authority or agency or any institutional or ethical review board alleging or asserting noncompliance with any law, rule or regulation applicable in any jurisdiction, except notices, letters, and correspondences and non-U.S. counterparts thereof alleging or asserting such noncompliance as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, neither the Company nor any Subsidiary has, either voluntarily or involuntarily, initiated, conducted or issued, or caused to be initiated, conducted or issued, any recall, field correction, market withdrawal or replacement, safety alert, warning, "dear doctor" letter, investigator notice, or other notice or action relating to an alleged or potential lack of safety or efficacy of any product or potential product of the Company or any Subsidiary, any alleged product defect of any product or potential product of the Company or any Subsidiary, or any violation of any material applicable law, rule, regulation or any clinical trial or marketing license, approval, permit or authorization for any product or potential product of the Company or any Subsidiary, and the Company is not aware of any facts or information that would cause it to initiate any such notice or action and has no knowledge or reason to believe that the FDA, the EMEA or any other governmental agency or authority or any institutional or ethical review board or other non-governmental authority intends to impose, require, request or suggest such notice or action. The pre-clinical or clinical studies, tests, investigations, and trials conducted by or on behalf of the Company or any Subsidiary that are described in the Registration Statement, the General Disclosure Package or the

Prospectus were and, if still in progress, are being, conducted in compliance with all applicable U.S. and foreign statutes, rules, regulations, orders, or other laws, and, for any data to be submitted to the FDA pursuant to such studies, all applicable Good Laboratory Practices and Good Clinical Practices in all material respects.

(xx) Any certificate signed by or on behalf of the Company and delivered to the Placement Agent or to counsel for the Placement Agent shall be deemed to be a representation and warranty by the Company to the Placement Agent and the Purchasers as to the matters covered thereby.

4. *THE CLOSING.* The time and date of closing and delivery of the documents required to be delivered to the Placement Agent pursuant to Sections 5 and 7 hereof shall be at 11:00 A.M., New York time, on —, 2013 (the **"Closing Date"**) at the office of Lowenstein Sandler LLP, 1251 Avenue of the Americas, New York, New York 10020.

5. *FURTHER AGREEMENTS OF THE COMPANY.* The Company agrees with the Placement Agent and the Purchasers:

(a) To prepare the Rule 462(b) Registration Statement, if necessary, in a form approved by the Placement Agent and file such Rule 462(b) Registration Statement with the Commission on the date hereof; to prepare the Prospectus in a form approved by the Placement Agent containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on rules 430A, 430B and 430C and to file such Prospectus pursuant to Rule 424(b) under the Rules and Regulations not later than the second (2nd) business day following the execution and delivery of this Agreement or, if applicable, such earlier time as may be required by Rule 430A under the Rules and Regulations; until such time as the Series B Warrants are no longer outstanding (the **"Completion Date"**), to notify the Placement Agent immediately of the Company's intention to file or prepare any supplement or amendment to any Registration Statement or to the Prospectus and to make no amendment or supplement to the Registration Statement, the General Disclosure Package or to the Prospectus to which the Placement Agent shall reasonably object by notice to the Company after a reasonable period to review, provided, however, that the Company shall only be required to provide the Placement Agent with a substantially final draft of any report to be filed by the Company with the Commission pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act; until the Completion Date, to advise the Placement Agent, promptly after it receives notice thereof, of the time when any amendment to any Registration Statement has been filed or becomes effective or any supplement to the General Disclosure Package or the Prospectus or any amended Prospectus has been filed and to furnish the Placement Agent copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to Rule 433(d) or 163(b)(2), as the case may be; to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Rules and Regulations) is required in connection with the offering or sale of the Securities; to advise the Placement Agent, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus,

any Issuer Free Writing Prospectus or the Prospectus, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement, the General Disclosure Package or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus or suspending any such qualification, and promptly to use its best efforts to obtain the withdrawal of such order.

(b) The Company represents and agrees that, unless it obtains the prior consent of the Placement Agent, it has not made and will not make any offer relating to the Securities that would constitute a "free writing prospectus" as defined in Rule 405 under the Rules and Regulations unless the prior written consent of the Placement Agent has been received (each, a **"Permitted Free Writing Prospectus"**); *provided* that the prior written consent of the Placement Agent hereto shall be deemed to have been given in respect of the Issuer Free Writing Prospectus included in Schedule A hereto. The Company represents that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, comply with the requirements of Rules 164 and 433 under the Rules and Regulations applicable to any Issuer Free Writing Prospectus, including the requirements relating to timely filing with the Commission, legending and record keeping and will not take any action that would result in the Placement Agent or the Company being required to file with the Commission pursuant to Rule 433(d) under the Rules and Regulations a free writing prospectus prepared by or on behalf of the Placement Agent that the Placement Agent otherwise would not have been required to file thereunder.

(c) If at any time until the Completion Date, when a Prospectus relating to the Securities is required to be delivered under the Securities Act, any event occurs or condition exists as a result of which the Prospectus, as then amended or supplemented, would include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, or the Registration Statement, as then amended or supplemented, would include any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein not misleading, or if for any other reason it is necessary at any time to amend or supplement any Registration Statement or the Prospectus to comply with the Securities Act or the Exchange Act, the Company will promptly notify the Placement Agent, and upon the Placement Agent's request, the Company will promptly prepare and file with the Commission, at the Company's expense, an amendment to the Registration Statement or an amendment or supplement to the Prospectus that corrects such statement or omission or effects such compliance and will deliver to the Placement Agent, without charge, such number of copies thereof as the Placement Agent may reasonably request. The Company consents to the use of the Prospectus or any amendment or supplement thereto by the Placement Agent.

(d) If the General Disclosure Package is being used to solicit offers to buy the Securities at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Placement Agent, it becomes necessary to amend or supplement

the General Disclosure Package in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, or to make the statements therein not conflict with the information contained or incorporated by reference in the Registration Statement then on file and not superseded or modified, or if it is necessary at any time to amend or supplement the General Disclosure Package to comply with any law, the Company promptly will either (i) prepare, file with the Commission (if required) and furnish to the Placement Agent and any dealers an appropriate amendment or supplement to the General Disclosure Package or (ii) prepare and file with the Commission an appropriate filing under the Exchange Act which shall be incorporated by reference in the General Disclosure Package so that the General Disclosure Package as so amended or supplemented will not, in the light of the circumstances then prevailing, be misleading or conflict with the Registration Statement then on file, or so that the General Disclosure Package will comply with law.

(e) If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or will conflict with the information contained in the Registration Statement, any Pricing Prospectus or the Prospectus, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof and not superseded or modified or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company has promptly notified or will promptly notify the Placement Agent so that any use of the Issuer Free Writing Prospectus may cease until it is amended or supplemented and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(f) To the extent not available on the Commission's EDGAR system or any successor system, to furnish promptly to the Placement Agent and to counsel for the Placement Agent a signed copy of the Registration Statement as originally filed with the Commission, and of each amendment thereto filed with the Commission, including all consents and exhibits filed therewith.

(g) To the extent not available on the Commission's EDGAR system or any successor system, to deliver promptly to the Placement Agent in New York City such number of the following documents as the Placement Agent shall reasonably request: (i) conformed copies of the Registration Statement as originally filed with the Commission (in each case excluding exhibits), (ii) each Preliminary Prospectus, (iii) any Issuer Free Writing Prospectus, (iv) the Prospectus (the delivery of the documents referred to in clauses (i), (ii), (iii) and (iv) of this paragraph (g) to be made not later than 10:00 A.M., New York time, on the business day following the execution and delivery of this Agreement), (v) conformed copies of any amendment to the Registration Statement (excluding exhibits), (vi) any amendment or supplement to the General Disclosure Package or the Prospectus (the delivery of the

documents referred to in clauses (v) and (vi) of this paragraph (g) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such amendment or supplement) and (vii) any document incorporated by reference in the Registration Statement, the General Disclosure Package or the Prospectus (excluding exhibits thereto) (the delivery of the documents referred to in clause (vii) of this paragraph (g) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such document).

(h) To make generally available to its stockholders as soon as practicable, but in any event not later than eighteen (18) months after the effective date of each Registration Statement (as defined in Rule 158(c) under the Rules and Regulations), an earnings statement of the Company and any Subsidiary (which need not be audited) complying with Section 11(a) of the Securities Act and the Rules and Regulations (including, at the option of the Company, Rule 158); and to furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders' equity and cash flows of the Company and its consolidated subsidiaries certified by independent public accountants) and as soon as possible after each of the first three fiscal quarters of each fiscal year (beginning with the first fiscal quarter after the effective date of such Registration Statement), consolidated summary financial information of the Company and its subsidiaries for such quarter in reasonable detail.

(i) To take promptly from time to time such actions as the Placement Agent may reasonably request to qualify the Securities for offering and sale under the securities or Blue Sky laws of such jurisdictions (domestic or foreign) as the Placement Agent may designate and to continue such qualifications in effect, and to comply with such laws, for so long as required to permit the offer and sale of the Securities in such jurisdictions; *provided* that the Company shall not be obligated to qualify as foreign corporations in any jurisdiction in which they are not so qualified or to file a general consent to service of process in any jurisdiction.

(j) To the extent not available on the Commission's EDGAR system or any successor system, during the period of two (2) years from the date hereof, to deliver to the Placement Agent, (i) as soon as they are available, copies of all reports or other communications furnished to stockholders (other than reports, proxy statements and other information that is electronically filed with the Commission via EDGAR or any successor system), and (ii) as soon as they are available, copies of any reports and financial statements furnished or filed with the Commission or any national securities exchange or automatic quotation system on which the Company's securities are listed or quoted.

(k) That the Company will not, for a period of thirty (30) days from the date of the Prospectus (the **"Lock-Up Period"**), without the prior written consent of the Placement Agent, directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, other than: (i) the Company's sale of the Securities and the Agent Securities hereunder and any exercise thereof; (ii) the issuance of restricted Common Stock or options to acquire Common Stock pursuant to the Company's employee benefit plans, qualified stock option plans or other employee compensation plans as such plans are

in existence on the date hereof and described in the Prospectus; and (iii) the issuance of Common Stock pursuant to the valid exercises of options, warrants or rights outstanding on the date hereof. The Company will cause each executive officer, director, stockholder, optionholder and warrantholder listed in Schedule B to furnish to the Placement Agent, on or prior to the date of this Agreement, a letter, substantially in the form of Exhibit D hereto, pursuant to which each such person shall agree, among other things, not to directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, not to engage in any swap or other agreement or arrangement that transfers, in whole or in part, directly or indirectly, the economic risk of ownership of Common Stock or any such securities and not to engage in any short selling of any Common Stock or any such securities, during the Lock-Up Period, without the prior written consent of the Placement Agent, subject to certain other exceptions provided for in such letter. The Company also agrees that during such period, the Company will not file any registration statement, preliminary prospectus or prospectus, or any amendment or supplement thereto, under the Securities Act for any such transaction or which registers, or offers for sale, Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, except for a registration statement on Form S-8 relating to employee benefit plans. The Company hereby agrees that (i) if it issues an earnings release or material news, or if a material event relating to the Company occurs, during the last seventeen (17) days of the Lock-Up Period, or (ii) if prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the sixteen (16)-day period beginning on the last day of the Lock-Up Period, the restrictions imposed by this paragraph (k) or the letter shall continue to apply until the expiration of the eighteen (18)-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

(l) Until the Completion Date, to supply the Placement Agent with copies of all correspondence to and from, and all documents issued to and by, the Commission in connection with the registration of the Securities under the Securities Act or the Registration Statement, any Preliminary Prospectus or the Prospectus, or any amendment or supplement thereto or document incorporated by reference therein.

(m) Prior to the Closing Date, to furnish to the Placement Agent, as soon as they have been prepared, copies of any unaudited interim consolidated financial statements of the Company for any periods subsequent to the periods covered by the financial statements appearing in the Registration Statement and the Prospectus.

(n) Prior to the Closing Date, not to issue any press release or other communication directly or indirectly or hold any press conference with respect to the Company, its condition, financial or otherwise, or earnings, business affairs or business prospects (except for routine oral marketing communications in the ordinary course of business and consistent with the past practices of the Company and of which the Placement Agent is notified), without the prior written consent of the Placement Agent, unless in the judgment of the Company and its

counsel, and after notification to the Placement Agent, such press release or communication is required by law.

(o) Until the Placement Agent shall have notified the Company of the completion of the offering of the Firm Securities, that the Company will not, and will cause its affiliated purchasers (as defined in Regulation M under the Exchange Act) not to, either alone or with one or more other persons, bid for or purchase, for any account in which it or any of its affiliated purchasers has a beneficial interest, any Securities, or attempt to induce any person to purchase any Securities; and not to, and to cause its affiliated purchasers not to, make bids or purchase for the purpose of creating actual, or apparent, active trading in or of raising the price of the Securities; provided, however, that this clause (o) shall not affect the ability of the Company's affiliated purchasers to purchase Securities in the Offering.

(p) Not to take any action prior to the Closing Date which would require the Prospectus to be amended or supplemented pursuant to Section 5.

(q) To at all times comply in all material respects with all applicable provisions of the Sarbanes-Oxley Act in effect from time to time.

(r) To apply the net proceeds from the sale of the Firm Securities as set forth in the Registration Statement, the General Disclosure Package and the Prospectus under the heading "Use of Proceeds."

(s) To use its best efforts to effect, quote and maintain, subject to notice of issuance, the Common Stock on the OTCQB or a national securities exchange.

(t) To use its best efforts to assist the Placement Agent with any filings with FINRA and obtaining clearance from FINRA as to the amount of compensation allowable or payable to the Placement Agent.

(u) To use its best efforts to do and perform all things required to be done or performed under this Agreement by the Company prior to the Closing Date and to satisfy all conditions precedent to the delivery of the Firm Securities.

(v) The Company hereby engages the Placement Agent as its exclusive agent for the solicitation of the exercise of the Series B Warrants. The Company will (i) assist the Placement Agent with respect to the solicitation, if requested by the Placement Agent, and (ii) provide the Placement Agent lists of the record and, to the extent known, beneficial owners of the Series B Warrants. For each Series B Warrant exercised, the Company will pay the Placement Agent a solicitation fee (the "Solicitation Fee") of seven percent (7%) of the exercise price of the Series B Warrants. The Company shall provide the Placement Agent with written notice of each exercise of Series B Warrants within 24 hours of the applicable Exercise Date. Any such Solicitation Fee shall be paid to the Placement Agent not less than five (5) business days after the Exercise Date giving rise to such Solicitation Fee and shall be paid by wire transfer of immediately available funds to an account previously specified by the Placement Agent. The Company agrees to disclose the arrangement to pay solicitation fees to the Placement Agent in the General Disclosure Package and the Prospectus. Notwithstanding the foregoing, as required by FINRA Rule 5110(f)(2)(K), no Solicitation

Fee shall be payable to the Placement Agent hereunder in respect of the exercise of a Series B Warrant if: (i) the market price of the underlying shares of Common Stock is lower than the exercise price of the Series B Warrant at the time of exercise; (ii) the Series B Warrant is held in a discretionary account of an Placement Agent at the time of exercise, unless prior specific written approval for the exercise is received from the holder; (iii) the arrangement to pay the Solicitation Fee is not disclosed in the General Disclosure Package or the Prospectus or in any prospectus provided to the holder of the Series B Warrant at the time of exercise; (iv) the Series B Warrant is exercised in an unsolicited transaction; or (v) the holder of the Series B Warrant has not confirmed in writing that exercise was solicited and that the Placement Agent solicited his, her or its exercise. Notwithstanding the foregoing, the Placement Agent shall not receive any Solicitation Fee with respect to proceeds from the exercise of Series B Warrants issued to any officer or director of the Company or their affiliates.

6. *PAYMENT OF EXPENSES.* The Company agrees to pay, or reimburse if paid by the Placement Agent, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated: (a) the costs incident to the authorization, issuance, sale, preparation and delivery of the Securities to the Purchasers and the Agent Securities to the Placement Agent and any taxes payable in that connection; (b) the costs incident to the registration of the Securities and the Agent Securities under the Securities Act; (c) the costs incident to the preparation, printing and distribution of the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, the General Disclosure Package, the Prospectus, any amendments, supplements and exhibits thereto or any document incorporated by reference therein and the costs of printing, reproducing and distributing any transaction document by mail, telex or other means of communications; (d) the filing fees and other costs (excluding fees and expenses of counsel for the Placement Agent, if any) of any required review by FINRA of the terms of the sale of the Securities and any filings made with FINRA; (e) any applicable listing, quotation or other fees; (f) the filing fees and other costs (excluding fees and expenses of counsel to the Placement Agent, if applicable) of qualifying the Securities and the Agent Securities under the securities laws of the several jurisdictions as provided in Section 5(i) and of preparing, printing and distributing wrappers, Blue Sky Memoranda and Legal Investment Surveys; (g) the cost of preparing and printing stock certificates and Warrant agreements; (h) all fees and expenses of the registrar and transfer agent of the Common Stock and any registrar and transfer agent of the Warrants and the Agent Warrants; and (i) all other costs and expenses incident to the offering of the Securities or the performance of the obligations of the Company under this Agreement (including, without limitation, the fees and expenses of the Company's counsel and the Company's independent accountants and the travel and other reasonable documented expenses incurred by Company personnel in connection with any "road show" including, without limitation, any expenses advanced by the Placement Agent on the Company's behalf (which will be promptly reimbursed)); *provided* that, except to the extent otherwise provided in this Section 6 and in Sections 8 and 10, the Placement Agent shall pay its own costs and expenses. In addition, the Company will reimburse the Placement Agent for its reasonable out-of-pocket expenses, including legal fees and disbursements of its counsel in connnection with the purchase and sale of the Securities contemplated hereby up to an aggregate of $75,000.

7. *CONDITIONS TO THE OBLIGATIONS OF THE PLACEMENT AGENT AND THE PURCHASERS, AND THE SALE OF THE SHARES AND THE WARRANTS.* The respective

obligations of the Placement Agent hereunder and the Purchasers under the Subscription Agreements, and the Closing of the sale of the Firm Securities, are subject to the accuracy, when made and as of the Applicable Time and on the Closing Date, of the representations and warranties of the Company contained herein, to the accuracy of the statements of the Company made in any certificates pursuant to the provisions hereof, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) No stop order suspending the effectiveness of the Registration Statement or any part thereof, preventing or suspending the use of any Preliminary Prospectus, any Pricing Prospectus, the Prospectus or any Permitted Free Writing Prospectus or any part thereof shall have been issued and no proceedings for that purpose or pursuant to Section 8A under the Securities Act shall have been initiated or threatened by the Commission, and all requests for additional information on the part of the Commission (to be included or incorporated by reference in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the reasonable satisfaction of the Placement Agent; the Rule 462(b) Registration Statement, if any, each Issuer Free Writing Prospectus, if any, and the Prospectus shall have been filed with the Commission within the applicable time period prescribed for such filing by, and in compliance with, the Rules and Regulations and in accordance with Section 5(a) and the Rule 462(b) Registration Statement, if any, shall have become effective immediately upon its filing with the Commission; and FINRA shall have raised no objection to the fairness and reasonableness of the terms of this Agreement or the transactions contemplated hereby.

(b) The Placement Agent shall not have discovered and disclosed to the Company on or prior to the Closing Date that the Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Placement Agent, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the General Disclosure Package, any Issuer Free Writing Prospectus or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the opinion of such counsel, is material or omits to state any fact which, in the opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances in which they were made, not misleading.

(c) All corporate proceedings and other legal matters incident to the authorization, form and validity of each of this Agreement, the Subscription Agreements, the Securities, the Registration Statement, the General Disclosure Package, each Issuer Free Writing Prospectus, if any, and the Prospectus and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Placement Agent, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) (i) DLA Piper LLP shall have furnished to the Placement Agent, such counsel's written opinion and negative assurances statement, as counsel to the Company, addressed to the Placement Agent and dated the Closing Date, in a form reasonably acceptable to the

Placement Agent and its counsel, subject to reasonably acceptable qualifications, limitations and assumptions.

(ii) Louis C. Paul & Associates, PLLC shall have furnished to the Placement Agent, such counsel's opinion and negative assurance letter, as intellectual property counsel for the Company's subsidiary, Lifeline Skin Care, Inc., dated the Closing Date, and addressed to the Placement Agent, in a form and substance reasonably satisfactory to the Placement Agent and its counsel.

(e) The Placement Agent shall have received a letter of Mayer Hoffman McCann P.C. on the date hereof and on the Closing Date, addressed to the Placement Agent, confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, and confirming, as of the date of each such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the General Disclosure Package, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm with respect to the financial information and other matters required by the Placement Agent.

(f) The Company shall have furnished to the Placement Agent a certificate, dated the Closing Date, of its Chief Executive Officer, its President or a Vice President and its Chief Financial Officer stating that (i) such officers have carefully examined the Registration Statement, the General Disclosure Package, any Permitted Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, at the Applicable Time and as of the date of this Agreement and as of the Closing Date did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the General Disclosure Package, as of the Applicable Time and as of the Closing Date, any Permitted Free Writing Prospectus as of its date and as of the Closing Date, the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the General Disclosure Package or the Prospectus, (iii) to the best of their knowledge after reasonable investigation, as of the Closing Date, the representations and warranties of the Company in this Agreement are true and correct and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date, and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, any material adverse change in the financial position or results

of operations of the Company or any Subsidiary, or any change or development that, singularly or in the aggregate, would involve a material adverse change or a prospective material adverse change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company or any Subsidiary when taken as a whole, except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus.

(g) Since the date of the latest audited financial statements included in the Registration Statement, the General Disclosure Package and the Prospectus or incorporated by reference therein as of the date hereof, (i) neither the Company nor any Subsidiary shall have sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, and (ii) there shall not have been any change in the capital stock or long-term debt of the Company or any Subsidiary, or any change, or any development involving a prospective change, in or affecting the business, management, financial position, stockholders' equity or results of operations of the Company, otherwise than as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the effect of which, in any such case described in clause (i) or (ii) of this paragraph (g) is, in the judgment of the Placement Agent, so material and adverse as to make it impracticable or inadvisable to proceed with the sale or delivery of the Securities on the terms and in the manner contemplated in the General Disclosure Package.

(h) No action shall have been taken and no law, statute, rule, regulation or order shall have been enacted, adopted or issued by any governmental agency or body which would prevent the issuance or sale of the Securities or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company or any Subsidiary; and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued which would prevent the issuance or sale of the Securities or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company or any Subsidiary.

(i) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange, NYSE MKT or the Nasdaq Stock Market or in the OTCQB or other over-the-counter market, or trading in any securities of the Company on any exchange or in the OTCQB or other over-the-counter market, shall have been suspended or materially limited, or minimum or maximum prices or maximum range for prices shall have been established on any such exchange or such market by the Commission, by such exchange or market or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by Federal or state authorities or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, (iii) the United States shall have become engaged in hostilities, or the subject of an act of terrorism, or there shall have been an outbreak of or escalation in hostilities involving the United States, or there shall have been a declaration of a national emergency or war by the United States or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions (or the effect of international conditions

on the financial markets in the United States shall be such) as to make it, in the judgment of the Placement Agent, impracticable or inadvisable to proceed with the sale or delivery of the Firm Securities on the terms and in the manner contemplated in the Registration Statement, the General Disclosure Package and the Prospectus.

(j) The Placement Agent shall have received on or prior to the date of this Agreement the written agreements, substantially in the form of Exhibit D hereto, of the executive officers, directors, stockholders, optionholders and warrantholders of the Company listed in Schedule B to this Agreement.

(k) The Company shall have entered into Subscription Agreements with each of the Purchasers and such agreements shall be in full force and effect.

(l) FINRA shall have raised no objection as to the amount of compensation allowable or payable to the Placement Agent as described in the General Disclosure Package, any Pricing Prospectus or any Preliminary Prospectus.

(m) Prior to the Closing Date, the Company shall have furnished to the Placement Agent such further information, opinions, certificates, letters or documents as the Placement Agent shall have reasonably requested.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Placement Agent.

8. *INDEMNIFICATION AND CONTRIBUTION.*

(a) The Company shall indemnify and hold harmless the Placement Agent, its affiliates and each of its and their respective directors, officers, members, employees, representatives and agents and its affiliates, and each of its and their respective directors, officers, members, employees, representatives and agents and each person, if any, who controls the Placement Agent within the meaning of Section 15 of the Securities Act of or Section 20 of the Exchange Act (collectively the **"Placement Agent Indemnified Parties,"** and each a **"Placement Agent Indemnified Party"**) against any loss, claim, damage, expense or liability whatsoever (or any action, investigation or proceeding in respect thereof), joint or several, to which such Placement Agent Indemnified Party may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, expense, liability, action, investigation or proceeding arises out of or is based upon (A) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, (B) the omission or alleged omission to state in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, a material fact required to

be stated therein or necessary to make the statements therein not misleading, or (C) any breach of the representations and warranties of the Company contained herein or in the Subscription Agreements or failure of the Company to perform its obligations hereunder or thereunder or pursuant to any law, any act or failure to act, or any alleged act or failure to act, by the Placement Agent in connection with, or relating in any manner to, the Securities or the Offering, and which is included as part of or referred to in any loss, claim, damage, expense, liability, action, investigation or proceeding arising out of or based upon matters covered by subclause (A), (B) or (C) above of this Section 8(a) (*provided* that the Company shall not be liable in the case of any matter covered by this subclause (C) to the extent that it is determined in a final judgment by a court of competent jurisdiction that such loss, claim, damage, expense or liability resulted directly from any such act or failure to act undertaken or omitted to be taken by the Placement Agent through its gross negligence or willful misconduct), and shall reimburse the Placement Agent Indemnified Party promptly upon demand for any legal fees or other expenses reasonably incurred by that Placement Agent Indemnified Party in connection with investigating, or preparing to defend, or defending against, or appearing as a third party witness in respect of, or otherwise incurred in connection with, any such loss, claim, damage, expense, liability, action, investigation or proceeding, as such fees and expenses are incurred; *provided, however,* that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, expense or liability arises out of or is based upon an untrue statement or alleged untrue statement in, or omission or alleged omission from the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein made in reliance upon and in conformity with written information furnished to the Company by the Placement Agent specifically for use therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17). This indemnity agreement is not exclusive and will be in addition to any liability, which the Company might otherwise have and shall not limit any rights or remedies which may otherwise be available at law or in equity to the Placement Agent Indemnified Party.

(b) The Placement Agent shall indemnify and hold harmless the Company and its directors, its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the **"Company Indemnified Parties"** and each a **"Company Indemnified Party"**) against any loss, claim, damage, expense or liability whatsoever (or any action, investigation or proceeding in respect thereof), joint or several, to which such Company Indemnified Party may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, expense, liability, action, investigation or proceeding arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, or (ii) the omission or alleged omission to state in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing

Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, a material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that the untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with written information furnished to the Company by the Placement Agent specifically for use therein, which information the parties hereto agree is limited to the Placement Agent's Information as defined in Section 17 and shall reimburse the Company for any legal or other expenses reasonably incurred by such party in connection with investigating or preparing to defend or defending against or appearing as third party witness in connection with any such loss, claim, damage, liability, action, investigation or proceeding, as such fees and expenses are incurred. Notwithstanding the provisions of this Section 8(b) in no event shall any indemnity by the Placement Agent under this Section 8(b) exceed the total compensation received by the Placement Agent in accordance with Section 2.5.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action, the indemnified party shall, if a claim in respect thereof is to be made against an indemnifying party under this Section 8 notify such indemnifying party in writing of the commencement of that action; *provided, however,* that the failure to notify the indemnifying party shall not relieve it from any liability which it may have under this Section 8 except to the extent it has been materially prejudiced by such failure; and, *provided, further,* that the failure to notify an indemnifying party shall not relieve it from any liability which it may have to an indemnified party otherwise than under this Section 8. If any such action shall be brought against an indemnified party, and it shall notify the indemnifying party thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it wishes, jointly with any other similarly notified indemnifying party, to assume the defense of such action with counsel reasonably satisfactory to the indemnified party (which counsel shall not, except with the written consent of the indemnified party, be counsel to the indemnifying party). After notice from the indemnifying party to the indemnified party of its election to assume the defense of such action, except as provided herein, the indemnifying party shall not be liable to the indemnified party under Section 8 for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense of such action other than reasonable costs of investigation; *provided, however,* that any indemnified party shall have the right to employ separate counsel in any such action and to participate in the defense of such action but the fees and expenses of such counsel (other than reasonable costs of investigation) shall be at the expense of such indemnified party unless (i) the employment thereof has been specifically authorized in writing by the Company in the case of a claim for indemnification under Section 8(a) or Section 2(f) or the Placement Agent in the case of a claim for indemnification under Section 8(b), (ii) such indemnified party shall have been advised by its counsel that there may be one or more legal defenses available to it which are different from or additional to those available to the indemnifying party that make it inadvisable for joint representation by one counsel, or (iii) the indemnifying party has failed to assume the defense of such action and employ counsel reasonably satisfactory to the indemnified party within a reasonable period of time after notice of the commencement of the action or the indemnifying party does not diligently defend the action after assumption of the defense, in which case, if such

indemnified party notifies the indemnifying party in writing that it elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of (or, in the case of a failure to diligently defend the action after assumption of the defense, to continue to defend) such action on behalf of such indemnified party and the indemnifying party shall be responsible for legal or other expenses subsequently incurred by such indemnified party in connection with the defense of such action; *provided, however,* that the indemnifying party shall not, in connection with any one such action or separate but substantially similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of more than one separate firm of attorneys at any time for all such indemnified parties (in addition to any local counsel), which firm shall be designated in writing by the Placement Agent if the indemnified parties under this Section 8 consist of any Placement Agent Indemnified Party or by the Company if the indemnified parties under this Section 8 consist of any Company Indemnified Parties. Subject to this Section 8(c), the amount payable by an indemnifying party under Section 8 shall include, but not be limited to, (x) reasonable legal fees and expenses of counsel to the indemnified party and any other expenses in investigating, or preparing to defend or defending against, or appearing as a third party witness in respect of, or otherwise incurred in connection with, any action, investigation, proceeding or claim, and (y) all amounts paid in settlement of any of the foregoing. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of judgment with respect to any pending or threatened action or any claim whatsoever, in respect of which indemnification or contribution could be sought under this Section 8 (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party in form and substance reasonably satisfactory to such indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party. Subject to the provisions of the following sentence, no indemnifying party shall be liable for settlement of any pending or threatened action or any claim whatsoever that is effected without its written consent (which consent shall not be unreasonably withheld or delayed), but if settled with its written consent, if its consent has been unreasonably withheld or delayed or if there be a judgment for the plaintiff in any such matter, the indemnifying party agrees to indemnify and hold harmless any indemnified party from and against any loss or liability by reason of such settlement or judgment. In addition, if at any time an indemnified party shall have requested that an indemnifying party reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated herein effected without its written consent if (i) such settlement is entered into more than forty-five (45) days after receipt by such indemnifying party of the request for reimbursement, (ii) such indemnifying party shall have received notice of the terms of such settlement at least thirty (30) days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(d) If the indemnification provided for in this Section 8 is unavailable or insufficient to hold harmless an indemnified party under Section 8(a) or Section 8(b), then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the

amount paid, payable or otherwise incurred by such indemnified party as a result of such loss, claim, damage, expense or liability (or any action, investigation or proceeding in respect thereof), as incurred, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Placement Agent on the other hand from the offering of the Securities, or (ii) if the allocation provided by clause (i) of this Section 8(d) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) of this Section 8(d) but also the relative fault of the Company on the one hand and the Placement Agent on the other with respect to the statements, omissions, acts or failures to act which resulted in such loss, claim, damage, expense or liability (or any action, investigation or proceeding in respect thereof) as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Placement Agent on the other with respect to such offering shall be deemed to be in the same proportion as the total net proceeds from the offering of the Securities purchased under this Agreement (before deducting expenses) received by the Company bear to the total Placement Fee received by the Placement Agent in connection with the Offering, in each case as set forth in the table on the cover page of the Prospectus. The relative fault of the Company on the one hand and the Placement Agent on the other shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Placement Agent on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement, omission, act or failure to act; *provided* that the parties hereto agree that the written information furnished to the Company by the Placement Agent for use in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, consists solely of the Placement Agent's Information as defined in Section 17. The Company and the Placement Agent agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage, expense, liability, action, investigation or proceeding referred to above in this Section 8(d) shall be deemed to include, for purposes of this Section 8(d). any legal or other expenses reasonably incurred by such indemnified party in connection with investigating, preparing to defend or defending against or appearing as a third party witness in respect of, or otherwise incurred in connection with, any such loss, claim, damage, expense, liability, action, investigation or proceeding. Notwithstanding the provisions of this Section 8(d), the Placement Agent shall not be required to contribute any amount in excess of the total compensation received by the Placement Agent in accordance with Section 2.5 less the amount of any damages which the Placement Agent has otherwise paid or become liable to pay by reason of any untrue or alleged untrue statement, omission or alleged omission, act or alleged act or failure to act or alleged failure to act. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

9. *TERMINATION.* The obligations of the Placement Agent and the Purchasers hereunder and under the Subscription Agreements may be terminated by the Placement Agent, in its absolute discretion by notice given to the Company prior to delivery of and payment for the Shares and the Warrants if, prior to that time, (i) any of the conditions to closing in Section 7 shall not have been satisfied in full and shall not have been expressly waived in writing by the Placement Agent, (ii) any of the events described in Section 7(a), (b), (g), (h) or (i) shall have occurred or (iii) the Purchasers shall decline to purchase the Shares and the Warrants for any reason permitted under this Agreement or the Subscription Agreements.

10. *REIMBURSEMENT OF PLACEMENT AGENT'S EXPENSES.* Notwithstanding anything to the contrary in this Agreement, if (a) this Agreement shall have been terminated pursuant to Section 9, (b) the Company shall fail to tender the Firm Securities for delivery to the Purchasers for any reason not permitted under this Agreement, (c) the Purchasers shall decline to purchase the Firm Securities for any reason permitted under this Agreement or (d) the sale of the Firm Securities is not consummated because any condition to the obligations of the Purchasers or the Placement Agent set forth herein is not satisfied or because of the refusal, inability or failure on the part of the Company to perform any agreement herein or to satisfy any condition or to comply with the provisions hereof, then in addition to the payment of amounts in accordance with Section 6 the Company shall reimburse the Placement Agent for the reasonable documented and accountable fees and expenses of the Placement Agent's counsel and for such other out-of-pocket expenses as shall have been reasonably incurred by them in connection with this Agreement and the proposed purchase of the Firm Securities, and upon demand the Company shall pay the full amount thereof to the Placement Agent.

11. *ABSENCE OF FIDUCIARY RELATIONSHIP.* The Company acknowledges and agrees that:

(a) the Placement Agent's responsibility to the Company is solely contractual in nature, the Placement Agent has been retained solely to act as Placement Agent in connection with the Offering and no fiduciary, advisory or agency relationship between the Company and the Placement Agent has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Placement Agent has advised or is advising the Company on other matters;

(b) the price of the Firm Securities set forth in this Agreement was established by the Company following discussions and arms-length negotiations with the Placement Agent and the Purchasers, and the Company is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) it has been advised that the Placement Agent and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Placement Agent has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) it waives, to the fullest extent permitted by law, any claims it may have against the Placement Agent for breach of fiduciary duty or alleged breach of fiduciary duty and

agrees that the Placement Agent shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

12. *SUCCESSORS; PERSONS ENTITLED TO BENEFIT OF AGREEMENT.* This Agreement shall inure to the benefit of and be binding upon the Placement Agent, the Company, and their respective successors and assigns. This Agreement shall also inure to the benefit of the Purchasers, and each of their respective successors and assigns, which shall be third party beneficiaries hereof. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, other than the persons mentioned in the preceding sentences, any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions herein contained, this Agreement and all conditions and provisions hereof being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person; except that the representations, warranties, covenants, agreements and indemnities of the Company contained in this Agreement shall also be for the benefit of the Placement Agent Indemnified Parties and the indemnities of the Placement Agent shall be for the benefit of the Company Indemnified Parties. It is understood that the Placement Agent's responsibility to the Company is solely contractual in nature and the Placement Agent does not owe the Company, or any other party, any fiduciary duty as a result of this Agreement.

13. *SURVIVAL OF INDEMNITIES, REPRESENTATIONS, WARRANTIES, ETC.* The respective indemnities, covenants, agreements, representations, warranties and other statements of the Company and the Placement Agent, as set forth in this Agreement or made by them respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation made by or on behalf of the Placement Agent, the Company, the Purchasers or any person controlling any of them and shall survive delivery of and payment for the Firm Securities. Notwithstanding any termination of this Agreement, including without limitation any termination pursuant to Sections 9 or 10, the indemnity and contribution agreements contained in Section 8 and the covenants, representations, warranties set forth in this Agreement shall not terminate and shall remain in full force and effect at all times.

14. *NOTICES.* All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Placement Agent, shall be delivered or sent by mail, telex, facsimile transmission or overnight courier to Roth Capital Partners, LLC, 888 San Clemente Drive, Newport Beach, California 92660, Attention: Aaron Gurewitz, Fax: (949) 720-7227, with a copy (which shall not constitute notice) to: Lowenstein Sandler LLP, 1251 Avenue of the Americas, New York, NY 10020, Attention: John D. Hogoboom, Fax (973) 597-2400; and

(b) if to the Company, shall be delivered or sent by mail, telex, facsimile transmission or overnight courier to 5950 Priestly Drive, Carlsbad, California 92008, Attention: Chief Financial Officer, Fax: (760) 476-0600, with a copy (which shall not constitute notice) to: DLA Piper LLP, 4365 Executive Drive, Suite 1100, San Diego, California 92121, Attention: Douglas Rein, Fax: (858) 638-5043.

Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof, except that any such statement, request, notice or agreement delivered or sent by email shall take effect at the time of confirmation of receipt thereof by the recipient thereof.

15. *DEFINITION OF CERTAIN TERMS.* For purposes of this Agreement, "business day" means any day on which the New York Stock Exchange, Inc. is open for trading.

16. *GOVERNING LAW, AGENT FOR SERVICE AND JURISDICTION.* **This Agreement shall be governed by and construed in accordance with the laws of the State of New York, including without limitation Section 5-1401 of the New York General Obligations Law**. No legal proceeding may be commenced, prosecuted or continued in any court other than the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York, which courts shall have jurisdiction over the adjudication of such matters, and the Company and the Placement Agent each hereby consent to the jurisdiction of such courts and personal service with respect thereto. The Company and the Placement Agent each hereby consent to personal jurisdiction, service and venue in any court in which any legal proceeding arising out of or in any way relating to this Agreement is brought by any third party against the Company or the Placement Agent. The Company and the Placement Agent each hereby waive all right to trial by jury in any legal proceeding (whether based upon contract, tort or otherwise) in any way arising out of or relating to this Agreement. The Company agrees that a final judgment in any such legal proceeding brought in any such court shall be conclusive and binding upon the Company and the Placement Agent and may be enforced in any other courts in the jurisdiction of which the Company is or may be subject, by suit upon such judgment.

17. *PLACEMENT AGENT'S INFORMATION.* The parties hereto acknowledge and agree that, for all purposes of this Agreement, the Placement Agent's Information consists solely of the following information in the Prospectus: the second paragraph and the first sentence of the thirteenth paragraph under the heading "Plan of Distribution."

18. *PARTIAL UNENFORCEABILITY.* The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision hereof. If any section, paragraph, clause or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

19. *GENERAL.* This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. In this Agreement, the masculine, feminine and neuter genders and the singular and the plural include one another. The Section headings in this Agreement are for the convenience of the parties only and will not affect the construction or interpretation of this Agreement. This Agreement may be amended or modified, and the observance of any term of this Agreement may be waived, only by a writing signed by the Company and the Placement Agent.

20. *COUNTERPARTS.* This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument and such signatures may be delivered by facsimile.

If the foregoing is in accordance with your understanding of the agreement between the Company and the Placement Agent, kindly indicate your acceptance in the space provided for that purpose below.

Very truly yours,

INTERNATIONAL STEM CELL CORPORATION

By: _____
Name:
Title:

Accepted as of the date first above written:

ROTH CAPITAL PARTNERS, LLC

By: _____
Name: Aaron Gurewitz
Title: Head of Equity Capital Markets

SCHEDULE A

General Use Free Writing Prospectuses

None

SCHEDULE B

James Berglund
Charles J. Casamento
John Craw
Paul V. Maier
Jay Novak
Andrey Semechkin
Ruslan Semechkin
Donald A. Wright
X-Master, Inc.
Kenneth Aldrich

EXHIBIT A

Form of Subscription Agreement

EXHIBIT B

Form of Series A Warrant

EXHIBIT C

Form of Series B Warrant

EXHIBIT D

Form of Lock Up Agreement

May , 2013

ROTH Capital Partners, LLC
888 San Clemente Drive
Newport Beach, CA 92660

Re: INTERNATIONAL STEM CELL CORPORATION OFFERING

Dear Sirs:

In order to induce ROTH Capital Partners, LLC ("**Roth**") to enter in to a certain placement agent agreement with International Stem Cell Corporation, a Delaware corporation (the "**Company**"), with respect to the public offering (the "Offering") of securities of the Company including shares of the Company's Common Stock, par value $0.001 per share ("**Common Stock**"), the undersigned hereby agrees that for a period (the "**lock-up period**") of thirty (30) days following the date of the final prospectus filed by the Company with the Securities and Exchange Commission (the "**Commission**") in connection with the Offering, the undersigned will not, without the prior written consent of Roth, directly or indirectly, (i) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock (including, without limitation, shares of Common Stock or any such securities which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations promulgated under the Securities Act of 1933, as the same may be amended or supplemented from time to time (such shares or securities, the "**Beneficially Owned Shares**")), (ii) enter into any swap, hedge or other agreement or arrangement that transfers in whole or in part, the economic risk of ownership of any Beneficially Owned Shares, Common Stock or securities convertible into or exercisable or exchangeable for Common Stock, or (iii) engage in any short selling of any Beneficially Owned Shares, Common Stock or securities convertible into or exercisable or exchangeable for Common Stock.

If (i) the Company issues an earnings release or material news or a material event relating to the Company occurs during the last seventeen (17) days of the lock-up period, or (ii) prior to the expiration of the lock-up period, the Company announces that it will release earnings results during the sixteen (16)-day period beginning on the last day of the lock-up period, the restrictions imposed by this Agreement shall continue to apply until the expiration of the eighteen (18)-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

Anything contained herein to the contrary notwithstanding, the undersigned may transfer Beneficially Owned Shares without the prior written consent of Roth: if the undersigned is a natural person, (a) as a bona fide gift to any member of the immediate family (as defined below) of the undersigned or to a trust the beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, (b) by will or intestate succession upon the death of the undersigned or (c) as a bona fide gift to a charity or educational institution;

provided, however, in each such case the transferee agrees to be bound by the terms of this Agreement with respect to the Beneficially Owned Shares received in a writing in form and substance reasonably satisfactory to Roth. For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, mother, brother or sister of the undersigned.

Anything contained herein to the contrary notwithstanding, any person to whom shares of Common Stock, securities convertible into or exercisable or exchangeable for Common Stock or Beneficially Owned Shares are transferred from the undersigned shall be bound by the terms of this Agreement.

The undersigned understands that the undersigned shall be released from all obligations under this Agreement if (i) the Company notifies Roth that it does not intend to proceed with the Offering, or (ii) the Offering is not completed by August 1, 2013.

In addition, the undersigned hereby waives, from the date hereof until the expiration of the thirty (30) day period following the date of the Company's final prospectus, any and all rights, if any, to request or demand registration pursuant to the Securities Act of 1933, as amended, of any shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock that are registered in the name of the undersigned or that are Beneficially Owned Shares. In order to enable the aforesaid covenants to be enforced, the undersigned hereby consents to the placing of legends and/or stop transfer orders with the transfer agent of the Common Stock with respect to any shares of Common Stock, securities convertible into or exercisable or exchangeable for Common Stock or Beneficially Owned Shares.

By: _____

Name: _____

Title: _____

Exhibit 4.7

COMMON STOCK PURCHASE WARRANT

INTERNATIONAL STEM CELL CORPORATION

Warrant Shares: _____ Issue Date: July , 2013

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, — (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Original Issue Date (as defined below) (the "Exercisability Date") and on or prior to the close of business on the fifth anniversary of the Exercisability Date (the "Termination Date") but not thereafter, to subscribe for and purchase from International Stem Cell Corporation, a Delaware corporation (the "Company"), up to [1] shares (the "Warrant Shares") of common stock, par value $0.001 (the "Common Stock"), of the Company.

Section 1. Definitions. Capitalized terms used herein shall have the meanings given to them herein. As used herein, "Original Issue Date" means July , 2013 and "business day" means any day on which the New York Stock Exchange, Inc. is open for trading.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Exercisability Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy of the Notice of Exercise Form annexed hereto; and, within three (3) business days of the date said Notice of Exercise is delivered to the Company, the Company shall have received payment of the aggregate Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank or, if available, pursuant to the cashless exercise procedure specified in Section 2(c) below. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) business days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased or, in the case of a cashless exercise in accordance with Section 2(c), the number of Warrant Shares that would have been issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. **The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be $, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised (and the Company shall be permitted to satisfy its obligation to issue the Warrant Shares to be issued on exercise of this Warrant by issuing to the Holder), in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a

[1] 100% warrant coverage.

certificate for the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the VWAP on the business day immediately preceding the date on which Holder elects to exercise this Warrant by means of a "cashless exercise," as set forth in the applicable Notice of Exercise;
(B) = the Exercise Price of this Warrant, as adjusted hereunder; and
(X) = the number of Warrant Shares that would be issuable upon the requested exercise (or partial exercise, as the case may be) of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a market or exchange, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on such market or exchange on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a business day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a market or exchange, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Company and reasonably acceptable to the Required Holders (as defined herein), the fees and expenses of which shall be paid by the Company.

d) Mechanics of Exercise.

i. Delivery of Certificates Upon Exercise. Certificates for shares purchased hereunder shall be transmitted by the transfer agent to the Holder by crediting the account of the Holder's prime broker with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective Registration Statement covering the issuance of the Warrant Shares to the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery to the address specified by the Holder in the Notice of Exercise, in either case, by the date that is three (3) business days after the latest of (A) the delivery to the Company of the Notice of Exercise Form, (B) surrender of this Warrant (if required) and (C) payment of the aggregate Exercise Price as set forth above (including by cashless exercise, if permitted) (such date, the "Warrant Share Delivery Date"). This Warrant shall be deemed to have been exercised on the first date on which all of the foregoing have been delivered to the Company. The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been properly exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of the Holder and upon surrender of this Warrant certificate, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then, the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the transfer

agent to transmit to the Holder a certificate or the certificates representing the Warrant Shares pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such Warrant Share Delivery Date, the Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares that the Holder anticipated receiving from the Company (a "Buy-In"), then the Company shall, within five (5) business days after the Holder's request and in the Holder's discretion, either (i) pay cash to the Holder in an amount, equal to the Holder's total purchase price (including reasonable brokerage commissions, if any) for the shares of Common Stock so purchased (the "Buy-In Price"), at which point the Company's obligation to deliver such certificate (and to issue such Common Stock) shall terminate, or (ii) promptly honor its obligation to deliver to the Holder a certificate or certificates representing such Warrant Shares and pay cash to the Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of Warrant Shares, times (B) the VWAP (as reported by Bloomberg, L.P.) on the date of the event giving rise to the Company's obligation to deliver such certificate.

Notwithstanding the foregoing, the Company shall not be required to make the payments set forth herein in the case of uncertificated Warrant Shares if the Holder fails to timely file a request with the depository trust company to receive such uncertificated Warrant Shares.

Notwithstanding the foregoing, if the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Warrant Shares pursuant to an exercise on or before the Warrant Share Delivery Date, then the Holder will have the right to rescind such Notice of Exercise. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver a certificate pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's affiliates), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its affiliates and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company including, without limitation, any other securities of the Company or any Company subsidiary consolidated in the Company's financial statements which would entitle the holder thereof to acquire at any time Common Stock ("Common Stock Equivalents") subject to a limitation on conversion or exercise

analogous to the limitation contained herein beneficially owned by the Holder or any of its affiliates. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any affiliates) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of the Warrant that are in non-compliance with the Beneficial Ownership Limitation. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Securities and Exchange Commission (the "Commission"), as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the transfer agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two (2) business days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding as established by (A), (B) or (C) above, as applicable. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its affiliates since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon not less than 61 days' prior notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any such increase or decrease will not be effective until the 61st day after such notice is delivered to the Company and shall only be effective with respect to such Holder. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant or any other warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the

determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Adjustment upon Issuance of Shares of Common Stock. If and whenever on or after the date hereof, the Company issues or sells, or in accordance with this Section 3(b) is deemed to have issued or sold, any shares of Common Stock including the issuance or sale of shares of Common Stock owned or held by or for the account of the Company, but excluding shares of Common Stock deemed to have been issued by the Company in connection with any Exempt Issuance (defined below) or pursuant to Section 3(a) or Section 3(c), for a consideration per share (the "New Issuance Price") less than a price (the "Applicable Price") equal to the Exercise Price in effect immediately prior to such issue or sale or deemed issuance or sale (the foregoing a "Dilutive Issuance"), then immediately after such Dilutive Issuance, the Exercise Price then in effect shall be reduced and only reduced to an amount equal to the New Issuance Price. For purposes of determining the adjusted Exercise Price under this Section 3(b), the following shall be applicable:

(i) Issuance of Options. If the Company in any manner grants any Options (as defined below), other than in connection with any Exempt Issuance, and the lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Option or upon conversion, exercise or exchange of any Convertible Securities (as defined below) issuable upon exercise of any such Option is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the granting or sale of such Option for such price per share. For purposes of this Section 3(b)(i), the "lowest price per share for which one share of Common Stock is issuable upon exercise of such Options or upon conversion, exercise or exchange of such Convertible Securities issuable upon exercise of any such Option" shall be equal to the sum of the lowest amounts of consideration (if any) paid or payable by the Company with respect to any one share of Common Stock upon the granting or sale of the Option, upon exercise of the Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option, in each case inclusive of any underwriter or placement or sales agent discount, commission or concession. No further adjustment of the Exercise Price shall be made upon the actual issuance of such shares of Common Stock or of such Convertible Securities upon the exercise of such Options or upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities. "Options" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Common Stock Equivalents. "Convertible Securities" means any stock or securities (other than Options) convertible into or exercisable or exchangeable for shares of Common Stock or Common Stock Equivalents.

(ii) Issuance of Convertible Securities. If the Company in any manner issues or sells any Convertible Securities, other than in connection with any Exempt Issuance, and the lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the issuance or sale of such Convertible Securities for such price per share. For the purposes of this Section 3(b)(ii), the "lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof" shall be equal to the sum of the lowest amounts of consideration (if any) paid or payable by the Company with respect to one share of Common Stock upon the issuance or sale of the Convertible Security and upon conversion, exercise or exchange of such Convertible Security, in each case inclusive of any underwriter or placement or sales agent discount, commission or concession. No further adjustment of the Exercise Price shall be made upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities, and if any such issue or sale of such Convertible Securities is made upon exercise of any Options for which adjustment of this Warrant has been or is to be made pursuant to other provisions of this Section 3(b), no further adjustment of the Exercise Price shares shall be made by reason of such issue or sale.

(iii) Change in Option Price or Rate of Conversion. If the purchase price provided for in any Options, the additional consideration, if any, payable upon the issue, conversion, exercise or exchange of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exercisable or exchangeable for shares of Common Stock increases or decreases at any time, then the Exercise Price in effect at the time of such increase or decrease shall be adjusted to the Exercise Price which would have been in effect at such time had such Options or Convertible Securities provided for

such increased or decreased purchase price, additional consideration or increased or decreased conversion rate, as the case may be, at the time initially granted, issued or sold. For purposes of this Section 3(b)(iii), if the terms of any Option or Convertible Security that was outstanding as of the date of issuance of this Warrant are increased or decreased in the manner described in the immediately preceding sentence, then such Option or Convertible Security and the shares of Common Stock deemed issuable upon exercise, conversion or exchange thereof shall be deemed to have been issued as of the date of such increase or decrease. No adjustment pursuant to this Section 3(b) shall be made if such adjustment would result in an increase of the Exercise Price then in effect.

(iv) Calculation of Consideration Received. If any shares of Common Stock, Options or Convertible Securities are issued or sold or deemed to have been issued or sold for cash, the consideration paid therefor will be deemed to be the gross amount payable therefor, in each case inclusive of any underwriter or placement or sales agent discount, commission or concession. If any shares of Common Stock, Options or Convertible Securities are issued or sold for a consideration other than cash, the amount of such consideration paid will be the fair value of such consideration, except where such consideration consists of securities, in which case the amount of consideration paid to the Company will be the VWAP of such security on the date of receipt. If any shares of Common Stock, Options or Convertible Securities are issued to the owners of the non-surviving entity in connection with any merger in which the Company is the surviving entity, the amount of consideration therefor will be deemed to be the fair value of such portion of the net assets and business of the non-surviving entity as is attributable to such shares of Common Stock, Options or Convertible Securities, as the case may be. The fair value of any consideration other than cash or securities will be determined jointly by the Company and the Holder. If such parties are unable to reach agreement within ten (10) days after the occurrence of an event requiring valuation (the "Valuation Event"), the fair value of such consideration will be determined within five (5) business days after the tenth (10th) day following the Valuation Event by an independent, reputable appraiser jointly selected by the Company and the Holder. The determination of such appraiser shall be final and binding upon all parties absent manifest error and the fees and expenses of such appraiser shall be borne by the Company.

(v) Record Date. If the Company takes a record of the holders of shares of Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (B) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the shares of Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(vi) Exempt Issuance. For the purposes of this Warrant, "Exempt Issuance" means the issuance of (a) shares of Common Stock, options or other equity-based awards to employees, officers, consultants or directors of the Company pursuant to any stock or option plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, (b) securities upon the exercise or exchange of or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date hereof, provided that such securities have not been amended since date hereof to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities, (c) securities issued pursuant to acquisitions or strategic transactions (including without limitation, sponsored research, collaboration, technology license, development, distribution, marketing, or similar arrangement or alliance) approved by a majority of the disinterested directors of the Company, provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not, for the purposes of this clause (c), include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, (d) securities upon the exercise of the Company's Series B Warrants issued on the Original Issue Date (including shares of Common Stock issuable upon the exercise of the additional Warrants issuable upon the exercise of such Series B Warrants), (e) securities issued or issuable to parties providing equipment leases, real property leases, credit lines or similar transactions pursuant to debt financing or commercial arrangements approved by a

majority of the disinterested directors of the Company, and (f) securities issued in transactions that are included within the definition of an "Exempt Issuance" by the approval of the Required Holders.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) [Reserved]

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as provided for under Section 3(a)), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement (other than an additional cash investment in the Company on terms and conditions that are consistent with investment transactions in which the investor does not obtain control of the issuing entity made solely for investment purposes by Andrey Semechkin, Ruslan Semechkin and/or their affiliates) or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of clarity, no bona fide underwritten offering of the Company's securities will be deemed to be a Fundamental Transaction. For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction.

Notwithstanding the foregoing, in the event of a Fundamental Transaction that is (1) an all cash transaction, (2) a "Rule 13e-3 transaction" as defined in Rule 13e-3 under the Exchange Act or (3) a Fundamental Transaction involving a person or entity not traded on either The New York Stock Exchange, Inc., The NYSE MKT, The NASDAQ Global Select Market, The NASDAQ Global Market or The NASDAQ Capital Market, other than a merger in connection with a bona fide acquisition by the Company of any Person in which (x) the gross consideration paid, directly or indirectly, by the Company in such acquisition is not greater than 45% of the Company's market capitalization as calculated on each of (1) the date of the public announcement of such merger and (2) the date of the consummation of such merger and (y) such merger does not contemplate any change to the identity of the board of directors of the Company or any of the members of the senior management of the Company, including, without limitation, the chief executive officer and the chief financial officer of the Company, at the request of the Holder delivered before the 45th day after such Fundamental Transaction, the Company (or the Successor Entity, as defined below) shall purchase this Warrant from the Holder by paying to the Holder, within five business days after such request (or, if later, on the effective date of the Fundamental Transaction), cash in an amount equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black Scholes Option Pricing Model obtained from the "OV" function on Bloomberg using (i) a price per share of Common Stock equal to the Weighted Average Price of the Common Stock for the business day immediately preceding the date of consummation of the applicable Fundamental Transaction, (ii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of the date of the Holder's request under this Section 3(e) and (iii) an expected volatility equal to the lesser of 80% and the 60-day volatility obtained from the HVT function on Bloomberg determined as of the business day next following the public announcement of the applicable Fundamental Transaction.

The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly mail to the Holder a notice setting forth the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If during the term in which this Warrant may be exercised by the Holder (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with applicable securities laws, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall include reference to the initial issuance date set forth on the first page of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto and the Warrant number.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual written notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i).

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it, and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a business day, then, such action may be taken or such right may be exercised on the next succeeding business day.

d) Authorized Shares. The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE AMEX, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange or the OTC Bulletin Board (or any successors to any of the foregoing). The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the laws of the State of New York.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company or the Holder willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the other party, then such party shall pay to the other party such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by such party in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in writing, will be mailed (a) if within the domestic United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or (b) if delivered from outside the United States, by International Federal Express or facsimile, and (c) will be deemed given (i) if delivered by first-class registered or certified mail domestic, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express, two business days after so mailed and (iv) if delivered by facsimile, upon electronic confirmation of receipt, and will be delivered and addressed as follows:

(i) if to the Company, to:

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, CA 92008
Attn: Jay Novak, Chief Financial Officer
Facsimile: (760) 476-0600

with a copy to:

DLA Piper LLP
4365 Executive Drive, Suite 1100
San Diego, CA 92121
Attn: Douglas Rein
Facsimile: (858) 638-5043

(ii) if to the Holder, at the address of the Holder appearing on the books of the Company.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder and the Company, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant is one of a series of Warrants of like tenor issued by the Company pursuant to the Placement Agent Agreement, dated as of July , 2013, by and between the Company and Roth Capital Partners, LLC (collectively, the "Series A Warrants"). Any term of this Warrant may be amended or waived (including the adjustment provisions included in Section 3 of this Warrant) upon the written consent of the Company and the holders of Series A Warrants representing at least 66 2/3% of the number of shares of Common Stock then subject to all outstanding Series A Warrants (the "Required Holders").

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or

invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

INTERNATIONAL STEM CELL CORPORATION

By: _____

Name:
Title:

NOTICE OF EXERCISE

TO: **INTERNATIONAL STEM CELL CORPORATION**

(1) The undersigned hereby elects to purchase Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any. By executing this notice, the undersigned Holder represents that it has complied with the Holder's Exercise Limitations set forth in Section 2(e) of this Warrant.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number or by physical delivery of a certificate to:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date:_____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [ ] all of or [ ] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned to _____

whose address is

_____

_____ .

Dated: _____ __, ____

Holder's Signature:

_____

Holder's Address:

_____

_____

Signature Guaranteed:_____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

Exhibit 4.8

Void after 5:00 p.m. (New York time) on —.

Warrant Certificate No. ___ Issue Date: July , 2013

INTERNATIONAL STEM CELL CORPORATION

(A corporation existing under the laws of the State of Delaware)

THIS SERIES B WARRANT TO PURCHASE UNITS (the "Warrant") certifies that, for value received, — (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Issue Date and on or prior to 5:00 p.m. (New York time) on the sixty-fifth (65th) trading day after the Issue Date (the "Expiration Date") (subject to extension as provided below) but not thereafter, to subscribe for and purchase from International Stem Cell Corporation, a Delaware corporation (the "Company"), up to —[1] Units (subject to adjustment as provided herein), with each Unit consisting of (i) one share of Common Stock, par value $0.001 per share (the "Common Stock"), of the Company (an "Option Share") and (ii) one Series A Warrant in the form attached hereto as Exhibit A to purchase one share of Common Stock (a "Option Series A Warrant Share"); provided, however, that the Expiration Date shall be extended by the aggregate number of days between the Issue Date and the Expiration Date of which the registration statement registering the Option Shares and Option Series A Warrant Shares is not effective, or no current prospectus is available, such that the Holder is not permitted to sell its Option Shares or its Option Series A Warrant Shares. The purchase price of one Unit under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Series A Warrant.

Section 2. Exercise.

a) Exercise of Warrant. Subject to the conditions set forth in this Section 2, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Issue Date and on or before the Expiration Date (the "Exercise Period") by delivery to the principal office of the Company of a duly executed copy of the Notice of Exercise Form annexed hereto (or to such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company). If this Warrant is to be exercised in full, the Holder shall surrender this Warrant to the Company concurrently with the delivery of the Notice of Exercise Form. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Units available hereunder and the Warrant has been exercised in full. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Units available hereunder shall have the effect of lowering the outstanding number of Units purchasable hereunder in an amount equal to the applicable number of Units purchased. The Holder and the Company shall maintain records showing the number of Units purchased and the date of such purchases. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Units hereunder, the number of Units available for purchase hereunder at any given time may be less than the amount stated on the face hereof.** Notwithstanding anything herein to the contrary, subject to the limitations set forth in Section 2(c), each exercise of this Warrant shall be for a minimum amount equal to the lesser of (i) $ or (ii) the then outstanding aggregate Exercise Price of this Warrant.

b) Exercise Price. "Exercise Price" means $ [2] per Unit, subject to adjustment as provided in this Warrant. If immediately following the close of trading of the Common Stock on the Principal Market (as defined below) (or, if the Principal Market is not the principal trading market for the Common Stock, the principal securities exchange or securities market on which the Common Stock is then listed or designated for

[1] 100% Warrant coverage.

[2] Equal to the public offering price of the Units.

quotation (as applicable)) on the sixtieth (60th) Trading Day following the Issue Date (such sixtieth (60th) Trading Day is referred to herein as the "Adjustment Date"), the Exercise Price in effect at such time is greater than the product of (i) 80% multiplied by (ii) the Closing Bid Price of the Common Stock on the Adjustment Date (such product is referred to herein as the "Adjustment Price"), then the Exercise Price in effect at such time shall immediately and automatically be decreased to equal the Adjustment Price (such a decrease is referred to herein as an "Exercise Price Adjustment"), with such decrease being effective retroactively as of 12:00:01 a.m. New York time on the third (3rd) Trading Day immediately preceding the Adjustment Date. In connection with the foregoing, if (x) an Exercise Price Adjustment occurs and (y) on the Adjustment Date prior to the time of the Exercise Price Adjustment or on any of the three Trading Days immediately preceding the Adjustment Date) the Holder has delivered one or more Exercise Notices to the Company and paid all or any part of the Exercise Price with respect thereto (such aggregate amount so paid by the Holder is referred to herein as the "Paid Exercise Price Amount"), then on the first (1st) Trading Day immediately following the Adjustment Date the Company shall deliver to the Holder, by wire transfer in U.S. dollars and immediately available funds in accordance with the wire instructions delivered by the Holder to the Company, an amount in cash amount equal to the positive difference (if any) between (x) the Paid Exercise Price Amount and (y) the product of (I) the aggregate number of Units elected to be purchased by the Holder in such Exercise Notices multiplied by (II) the Adjustment Price. If an Exercise Price Adjustment occurs, the Company shall, on the first (1st) Trading Day immediately following the Adjustment Date, notify the Holder of the Exercise Price in effect immediately following the Exercise Price Adjustment. As used herein, "Closing Bid Price" means, for any security as of any date, the last closing bid price for such security on the Nasdaq Global Market (the "Principal Market"), as reported by Bloomberg, L.P. ("Bloomberg"), or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price, then the last bid price of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price of such security on the principal securities exchange or trading market where such security is listed or designated for quotation as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price is reported for such security by Bloomberg, the average of the bid prices of any market makers for such security as reported by OTC Markets Group Inc. If the Closing Bid Price cannot be calculated, the Closing Bid Price of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holders. As used herein, "Trading Day" means any day on which the Principal Market is open for the trading of securities, or, if the Principal Market is not the principal trading market for the Common Stock, then on any day on which the principal securities exchange or securities market on which the Common Stock is then listed or designated for quotation (as applicable) is open for the trading of securities, provided that, if elected by the Holder, "Trading Day" shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York time).

c) Percentage Limitation. Notwithstanding anything herein to the contrary, the Company shall not issue to any Holder any Units, including pursuant to any rights herein, including, without limitation, any exercise rights, to the extent that the Option Shares and the Option Series A Warrant Shares underlying such Units, when added to the number of shares of Common Stock then beneficially owned by such Holder and any Persons whose beneficial ownership of Common Stock would be aggregated with such Holder for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), would cause the total number of shares of Common Stock beneficially owned by such Holder and any such Persons to exceed 9.999% of the total number of outstanding shares of Common Stock of the Company at the time of such issuance (the "Maximum Aggregate Share Amount"), provided, however, that this Section 2(c) shall not apply to the exercise of this Warrant in connection with any Fundamental Transaction in which the Company is acquired by a third party, whether by merger or stock purchase. Upon the reasonable written or oral request of the Holder, the Company shall within two (2) business days confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. For purposes of this Section 2(c), beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 2(c) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder

together with any affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any affiliates) and of which portion of this Warrant is exercisable, in each case subject to the Maximum Aggregate Share Amount, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of the Warrant that are in non-compliance with the Maximum Aggregate Share Amount.

d) Authorization of Underlying Shares. The Company covenants that all Option Shares and Series A Warrants which may be issued upon the exercise of the purchase rights represented by this Warrant, and all Option Series A Warrant Shares which may be issued upon the exercise of the purchase rights represented by the Series A Warrants contained within the Units will, upon exercise of the purchase rights represented by this Warrant or the Series A Warrants, as applicable, and payment to the Company of the purchase price therefor, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

e) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the certificate or certificates representing Units, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Units called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

f) No Fractional Shares or Scrip. No fractional Option Shares or scrip representing fractional Option Shares shall be issued upon exercise of this Warrant. As to any fraction of an Option Share that Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price. Upon any exercise of this Warrant, no Series A Warrant shall be issued exercisable for fractional shares of Common Stock. The aggregate number of shares of Common Stock issuable upon exercise of such Series A Warrant shall be rounded down to the nearest whole share and any fractional shares of Common Stock that are not required to be issued by reason of this Section 2(f) shall be carried forward and shall be taken into account in the subsequent exercise of this Warrant. Whether or not a Series A Warrant exercisable for fractional shares of Common Stock would be issuable upon any exercise of this Warrant shall be determined on the basis of the total number of Units being exercised at the time and the aggregate number of Series A Warrants issuable upon such exercise.

g) Legends. The Option Shares and Option Series A Warrant Shares issued pursuant to this Warrant shall be issued free of all legends on the Exercise Date.

h) Charges, Taxes and Expenses. Issuance of certificates for Option Shares and/or Series A Warrants shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event certificates for Option Shares and/or Series A Warrants are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

i) Mechanics of Exercise.

i. [RESERVED]

ii. Exercise Date Deliveries. No later than three (3) business days following the receipt by the Company of (i) the completed Notice of Exercise Form, (ii) payment of the related Exercise Price, and (iii), if this Warrant is being exercised in full, this Warrant (such date, the "Exercise Date"), the Company shall deliver or cause to be delivered to the Holder the following:

(A) the Option Shares included in the Units purchased as a result of the exercise of this Warrant, registered in the name of the Holder, which shall be transmitted by the transfer agent of the Company to the Holder by crediting the account of the Holder's prime broker with The

Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is a participant in such system, and otherwise by physical delivery to an address specified by the Holder in the Notice of Exercise Form; and

(B) the Series A Warrants included in the Units purchased as a result of the exercise of this Warrant, registered in the name of the Holder, which shall be transmitted by physical delivery to an address specified by the Holder in the Notice of Exercise Form.

iii. Rescission Rights. If the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Option Shares or the Series A Warrants pursuant to Section 2(i)(ii) by the Exercise Date, then, the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Option Shares pursuant to an exercise on or before the Exercise Date, and if after such Exercise Date, the Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Option Shares that the Holder anticipated receiving from the Company (a "Buy-In"), then the Company shall, within five (5) business days after the Holder's request and in the Holder's discretion, either (i) pay cash to the Holder in an amount, equal to the Holder's total purchase price (including reasonable brokerage commissions, if any) for the shares of Common Stock so purchased (the "Buy-In Price"), at which point the Company's obligation to deliver such certificate (and to issue such Common Stock) shall terminate, or (ii) promptly honor its obligation to deliver to the Holder a certificate or certificates representing such Option Shares and pay cash to the Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of shares of Option Shares, times (B) the VWAP (as reported by Bloomberg, L.P.) on the date of the event giving rise to the Company's obligation to deliver such certificate.

Notwithstanding the foregoing, the Company shall not be required to make the payments set forth herein in the case of uncertificated Option Shares if the Holder fails to timely file a request with the depository trust company to receive such uncertificated Option Shares.

Notwithstanding the foregoing, if the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Option Shares pursuant to an exercise on or before the Exercise Date, then the Holder will have the right to rescind such Notice of Exercise. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver a certificate pursuant to the terms hereof.

For purposes of this Section, "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a market or exchange, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on such market or exchange on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a business day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a market or exchange, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Company and reasonably acceptable to the Required Holders (as defined herein), the fees and expenses of which shall be paid by the Company.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Option Shares or Series A Warrants issued by the Company pursuant to this Warrant),

(B) subdivides outstanding shares of Common Stock into a larger number of shares, (C) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (D) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction, of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event and the number of Units issuable upon exercise of this Warrant shall be proportionately adjusted in an inverse manner (*e.g.*, an increase in the Exercise Price shall result in a decrease in the number of Units) such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [Reserved]

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Maximum Aggregate Share Amount) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Maximum Aggregate Share Amount, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Maximum Aggregate Share Amount).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as provided for under Section 3(a)), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement (other than an additional cash investment in the Company on terms and conditions that are consistent with investment transactions in which the investor does not obtain control of the issuing entity made solely for investment purposes by Andrey Semechkin, Ruslan Semechkin and/or their affiliates) or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Option Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. For purposes of clarity, no bona fide underwritten offering of the Company's

securities will be deemed to be a Fundamental Transaction. For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Company or surviving entity in such Fundamental Transaction shall issue to the Holder a new warrant consistent with the foregoing provisions and evidencing the Holder's right to exercise such warrant into Alternate Consideration.

The terms of any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 3(c) and insuring that this Warrant (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holders.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to this Section 3, the Company shall promptly mail to each Holder a notice setting forth the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If during the term in which this Warrant may be exercised by the Holder (A) the Company shall declare a dividend (or any other distribution) on the Common Stock; (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock; (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights; (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, of any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property; (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company; then, in each case, the Company shall cause to be mailed to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided, in each case that such information shall be made known to the public through a press release, filing with the Commission, or other public announcement prior to or in conjunction with such notice being provided to the Holder, and provided further that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. If this Warrant is then exercisable pursuant to the terms hereof, the Holder shall be entitled to exercise this Warrant during the 10-day period commencing on the date of such notice to the effective date of the event triggering such notice.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder are transferable, in whole or in part and with the Company's consent (which shall not be unreasonably withheld), upon surrender of this Warrant at the

principal office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Units without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) Fees and Expenses. The Company shall pay all transfer agent fees, stamp taxes and other taxes and duties levied in connection with the delivery of any securities to the Holder, subject to Section 2(h) hereof.

b) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights or other rights as a stockholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price, the Units so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any certificate relating to the Option Shares and/or Series A Warrants, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of this Warrant or the Series A Warrants, shall not include the posting of any bond), and upon surrender and cancellation of such warrant or stock certificate, if mutilated, the Company will make and deliver a new warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such warrant or stock certificate.

d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a business day, then such action may be taken or such right may be exercised on the next succeeding business day.

e) Authorized Shares. The Company covenants that during the period the Warrant is outstanding, it will maintain a reserve, free from preemption rights, from its duly authorized shares of Common Stock for issuance in such amount as may be required to fulfill its obligations in full under this Warrant and any Series A Warrant issuable hereunder. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates and warrant certificates to execute and issue the necessary certificates for the Option Shares and Series A Warrants upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Option Shares and Series A Warrants may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. If at any time prior to the Expiration Date the number of authorized but unissued shares of Common Stock shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock (or other securities as provided herein) to such number of shares as shall be sufficient for such purposes.

Except and to the extent as waived or consented to by the Holder, the Company hereby covenants to not by any action, including, without limitation, amending its certificate of incorporation, bylaws or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of the Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Option Shares above the Exercise Price then in effect and (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Option Shares and Series A Warrants upon the exercise of this Warrant.

f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the laws of the State of New York.

g) Restrictions. The Holder acknowledges that the Option Shares and the Series A Warrants acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding the fact that all rights hereunder terminate on the Expiration Date. The Company's obligations to issue and deliver Units in accordance with the terms hereof shall not be affected by the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim or recoupment, or any violation or alleged violation of law by the Holder or any other Person. If the Company or the Holder willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the other party, then such party shall pay the other party such amounts as shall be sufficient to cover any costs and expenses incurred by such party in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

i) Notices. The Company shall provide Holder with prompt written notice of all actions taken pursuant to this Warrant. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in writing, will be mailed (a) if within the domestic United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or (b) if delivered from outside the United States, by International Federal Express or facsimile, and (c) will be deemed given (i) if delivered by first-class registered or certified mail domestic, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express, two business days after so mailed and (iv) if delivered by facsimile, upon electronic confirmation of receipt, and will be delivered and addressed as follows:

(i) if to the Company, to:

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, CA 92008
Attn: Jay Novak, Chief Financial Officer
Facsimile: (760) 476-0600

with a copy to:

DLA Piper LLP
4365 Executive Drive, Suite 1100
San Diego, CA 92121
Attn: Douglas Rein
Facsimile: (858) 638-5043

(ii) if to the Holder, at the address of the Holder appearing on the books of the Company.

j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Units, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

k) Remedies. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available or granted by law, including recovery of damages. Each of the parties hereto will be entitled to specific performance of its rights under this Warrant.

l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Units.

m) Amendment. This Warrant is one of a series of Warrants of like tenor issued by the Company pursuant to the Placement Agent Agreement, dated as of July , 2013, by and between the Company and Roth Capital Partners, LLC (collectively, the "Series B Warrants"). Any term of this Warrant may be amended or waived (including the adjustment provisions included in Section 3 of this Warrant) upon the written consent of the Company and the holders of Series B Warrants representing at least 66 2/3% of the number of Units then subject to all outstanding Series B Warrants (the "Required Holders").

n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: July , 2013

INTERNATIONAL STEM CELL CORPORATION

By: _____

Name:
Title:

EXHIBIT A

Form of Series A Warrant

NOTICE OF EXERCISE

TO: INTERNATIONAL STEM CELL CORPORATION

(1) The undersigned hereby elects to purchase Units of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the Exercise Price in full, together with all applicable transfer taxes, if any. By executing this notice of exercise form, the undersigned Holder represents that it has complied with the percentage limitation provisions of Section 2(c) of this warrant.

(2) Please issue a certificate or certificates representing said securities in the name of the undersigned or in such other name as is specified below:

The Units shall be delivered to the following: _____

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

(Check one of the following)

☐ The exercise of the attached Warrant was solicited by Roth Capital Partners, LLC.

☐ The exercise of the attached Warrant was unsolicited.

As required by FINRA Rule 5110(f)(2)(K), no solicitation fee will be payable to the underwriters with respect to the exercise of a Series B Warrant if:

- the market price of the underlying shares of Common Stock is lower than the exercise price of the Series B Warrant at the time of exercise;
- the Series B Warrant is held in a discretionary account of an underwriter at the time of exercise, unless prior specific written approval for the exercise is received from the holder;
- the arrangement to pay the solicitation fee is not disclosed in any prospectus provided to the holder of the Series B Warrant at the time of exercise;
- the Series B Warrant is exercised in an unsolicited transaction; or
- the holder of the Series B Warrant has not confirmed in writing that exercise was solicited and that the underwriters solicited the exercise.

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to :

whose address is

_____

_____ .

Dated: _____ __, ____

Holder's Signature:

_____

Holder's Address:

_____

_____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

Exhibit 4.9

[FORM OF PLACEMENT AGENT WARRANT]

Void after 5:00 p.m. (New York time) on —.

Warrant Certificate No. ___ Issue Date: July , 2013

INTERNATIONAL STEM CELL CORPORATION

(A corporation existing under the laws of the State of Delaware)

THIS WARRANT TO PURCHASE UNITS (the "Warrant") certifies that, for value received, — (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Issue Date and on or prior to the close of business on the fifth anniversary of the Issue Date (the "Expiration Date") (subject to extension as provided below) but not thereafter, to subscribe for and purchase from International Stem Cell Corporation, a Delaware corporation (the "Company"), up to —[1] Units (subject to adjustment as provided herein), with each Unit consisting of (i) one share of Common Stock, par value $0.001 per share (the "Common Stock"), of the Company (an "Option Share") and (ii) one Series A Warrant in the form attached hereto as Exhibit A to purchase one share of Common Stock (a "Option Series A Warrant Share"); provided, however, that the Expiration Date shall be extended by the aggregate number of days between the Issue Date and the Expiration Date of which the registration statement registering the Option Shares and Option Series A Warrant Shares is not effective, or no current prospectus is available, such that the Holder is not permitted to sell its Option Shares or its Option Series A Warrant Shares. The purchase price of one Unit under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Series A Warrant.

Section 2. Exercise.

a) Exercise of Warrant. Subject to the conditions set forth in this Section 2, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Issue Date and on or before the Expiration Date (the "Exercise Period") by delivery to the principal office of the Company of a duly executed copy of the Notice of Exercise Form annexed hereto (or to such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company); and, within three (3) business days of the date said Notice of Exercise is delivered to the Company, the Company shall have received payment of the aggregate Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank or pursuant to the cashless exercise procedure specified in Section 2(c) below. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Units available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) business days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Units available hereunder shall have the effect of lowering the outstanding number of Units purchasable hereunder in an amount equal to the applicable number of Units purchased or, in the case of a cashless exercise in accordance with Section 2(c), the number of Units that would have been issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. **The Holder and the Company shall maintain records showing the number of Units purchased and the date of such purchases. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Units hereunder, the number of Units available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

[1] 5% of Units sold.

b) Exercise Price. "Exercise Price" means $ [2] per Unit, subject to adjustment as provided in this Warrant.

c) Cashless Exercise. The Holder may, in its sole discretion, exercise this Warrant (and the Company shall be permitted to satisfy its obligation to issue the Units to be issued on exercise of this Warrant by issuing to the Holder), in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Units equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the VWAP on the business day immediately preceding the date on which Holder elects to exercise this Warrant by means of a "cashless exercise," as set forth in the applicable Notice of Exercise;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Units that would be issuable upon the requested exercise (or partial exercise, as the case may be) of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a market or exchange, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on such market or exchange on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a business day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a market or exchange, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Company and reasonably acceptable to the Required Holders (as defined herein), the fees and expenses of which shall be paid by the Company.

d) Authorization of Underlying Shares. The Company covenants that all Option Shares and Series A Warrants which may be issued upon the exercise of the purchase rights represented by this Warrant, and all Option Series A Warrant Shares which may be issued upon the exercise of the purchase rights represented by the Series A Warrants contained within the Units will, upon exercise of the purchase rights represented by this Warrant or the Series A Warrants, as applicable, and payment to the Company of the purchase price therefor, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

e) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the certificate or certificates representing Units, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Units called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

f) No Fractional Shares or Scrip. No fractional Option Shares or scrip representing fractional Option Shares shall be issued upon exercise of this Warrant. As to any fraction of an Option Share that Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price. Upon any exercise of this Warrant, no Series A Warrant shall be issued exercisable for fractional shares of Common Stock. The aggregate number of shares of Common Stock issuable upon exercise of such Series A Warrant shall be rounded down to the nearest whole share and any fractional shares of Common Stock that are not required to be issued by reason of this Section 2(f) shall be carried forward and shall be taken into account in the subsequent exercise of this Warrant. Whether or not a Series A Warrant exercisable for fractional shares of Common Stock would be issuable upon any exercise of this Warrant shall be determined on the basis of the

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Equal to the public offering price of the Units.

total number of Units being exercised at the time and the aggregate number of Series A Warrants issuable upon such exercise.

g) Legends. The Option Shares and Option Series A Warrant Shares issued pursuant to this Warrant shall be issued free of all legends on the Exercise Date.

h) Charges, Taxes and Expenses. Issuance of certificates for Option Shares and/or Series A Warrants shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event certificates for Option Shares and/or Series A Warrants are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

i) Mechanics of Exercise.

i. [RESERVED]

ii. Exercise Date Deliveries. No later than three (3) business days following the receipt by the Company of (i) the completed Notice of Exercise Form, (ii) payment of the related Exercise Price (including by cashless exercise), and (iii), if this Warrant is being exercised in full, this Warrant (such date, the "Exercise Date"), the Company shall deliver or cause to be delivered to the Holder the following:

(A) the Option Shares included in the Units purchased as a result of the exercise of this Warrant, registered in the name of the Holder, which shall be transmitted by the transfer agent of the Company to the Holder by crediting the account of the Holder's prime broker with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is a participant in such system, and otherwise by physical delivery to an address specified by the Holder in the Notice of Exercise Form; and

(B) the Series A Warrants included in the Units purchased as a result of the exercise of this Warrant, registered in the name of the Holder, which shall be transmitted by physical delivery to an address specified by the Holder in the Notice of Exercise Form.

iii. Rescission Rights. If the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Option Shares or the Series A Warrants pursuant to Section 2(i)(ii) by the Exercise Date, then, the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Option Shares pursuant to an exercise on or before the Exercise Date, and if after such Exercise Date, the Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Option Shares that the Holder anticipated receiving from the Company (a "Buy-In"), then the Company shall, within five (5) business days after the Holder's request and in the Holder's discretion, either (i) pay cash to the Holder in an amount, equal to the Holder's total purchase price (including reasonable brokerage commissions, if any) for the shares of Common Stock so purchased (the "Buy-In Price"), at which point the Company's obligation to deliver such certificate (and to issue such Common Stock) shall terminate, or (ii) promptly honor its obligation to deliver to the Holder a certificate or certificates representing such Option Shares and pay cash to the Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of shares of Option Shares, times (B) the VWAP (as reported by Bloomberg, L.P.) on the date of the event giving rise to the Company's obligation to deliver such certificate.

Notwithstanding the foregoing, the Company shall not be required to make the payments set forth herein in the case of uncertificated Option Shares if the Holder fails to timely file a request with the depository trust company to receive such uncertificated Option Shares.

Notwithstanding the foregoing, if the Company fails to cause the transfer agent to transmit to the Holder a certificate or the certificates representing the Option Shares pursuant to an exercise on or before the

Exercise Date, then the Holder will have the right to rescind such Notice of Exercise. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver a certificate pursuant to the terms hereof.

For purposes of this Section, "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a market or exchange, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on such market or exchange on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a business day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a market or exchange, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Company and reasonably acceptable to the Required Holders (as defined herein), the fees and expenses of which shall be paid by the Company.

j) Percentage Limitation. Notwithstanding anything herein to the contrary, the Company shall not issue to any Holder any Units, including pursuant to any rights herein, including, without limitation, any exercise rights, to the extent that the Option Shares and the Option Series A Warrant Shares underlying such Units, when added to the number of shares of Common Stock then beneficially owned by such Holder and any Persons whose beneficial ownership of Common Stock would be aggregated with such Holder for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), would cause the total number of shares of Common Stock beneficially owned by such Holder and any such Persons to exceed 9.999% of the total number of outstanding shares of Common Stock of the Company at the time of such issuance (the "Maximum Aggregate Share Amount"), provided, however, that this Section 2(j) shall not apply to the exercise of this Warrant in connection with any Fundamental Transaction in which the Company is acquired by a third party, whether by merger or stock purchase. Upon the reasonable written or oral request of the Holder, the Company shall within two (2) business days confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. For purposes of this Section 2(j), beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 2(j) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any affiliates) and of which portion of this Warrant is exercisable, in each case subject to the Maximum Aggregate Share Amount, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of the Warrant that are in non-compliance with the Maximum Aggregate Share Amount.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Option Shares or Series A Warrants issued by the Company pursuant to this Warrant), (B) subdivides outstanding shares of Common Stock into a larger number of shares, (C) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (D) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction, of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event and the number of Units issuable upon exercise of this Warrant shall be proportionately adjusted in an inverse manner (*e.g.*, an increase in the Exercise Price shall result in a decrease in the number of Units) such

that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [Reserved]

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Maximum Aggregate Share Amount) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Maximum Aggregate Share Amount, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Maximum Aggregate Share Amount).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as provided for under Section 3(a)), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement (other than an additional cash investment in the Company on terms and conditions that are consistent with investment transactions in which the investor does not obtain control of the issuing entity made solely for investment purposes by Andrey Semechkin, Ruslan Semechkin and/or their affiliates) or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Option Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. For purposes of clarity, no bona fide underwritten offering of the Company's securities will be deemed to be a Fundamental Transaction. For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental

Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Company or surviving entity in such Fundamental Transaction shall issue to the Holder a new warrant consistent with the foregoing provisions and evidencing the Holder's right to exercise such warrant into Alternate Consideration.

The terms of any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 3(c) and insuring that this Warrant (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holders.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to this Section 3, the Company shall promptly mail to each Holder a notice setting forth the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If during the term in which this Warrant may be exercised by the Holder (A) the Company shall declare a dividend (or any other distribution) on the Common Stock; (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock; (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights; (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, of any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property; (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company; then, in each case, the Company shall cause to be mailed to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided, in each case that such information shall be made known to the public through a press release, filing with the Commission, or other public announcement prior to or in conjunction with such notice being provided to the Holder, and provided further that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. If this Warrant is then exercisable pursuant to the terms hereof, the Holder shall be entitled to exercise this Warrant during the 10-day period commencing on the date of such notice to the effective date of the event triggering such notice.

Section 4. Transfer of Warrant.

a) Transferability. Subject to applicable laws and the restrictions set forth in this paragraph, this Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company. The Holder agrees that, pursuant to the Lock-Up Period (as defined below) contained in Rule 5110(g)(1) of the Financial Industry Regulatory Authority, Inc. ("FINRA"), it will not (a) sell, transfer, assign, pledge, hypothecate or otherwise transfer this Warrant (including any Units issued or issuable hereunder) other than to a bona fide officer or partner of the Holder or any selected dealer in connection with the offering contemplated by the Placement Agent Agreement, in each case in accordance with FINRA Conduct Rule 5110(g)(1), or (b) cause this Warrant or any Units issued or issuable hereunder to be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of this Warrant or any Units issued or issuable hereunder, except as provided for in FINRA Rule 5110(g)(2). As used herein, the term "Lock-Up

Period" means the period beginning on the date that the registration statement registering this Warrant is declared effective by the Securities and Exchange Commission (the "Effective Date") and ending on the one hundred eighty day anniversary of the Effective Date. In addition, notwithstanding the other terms of this Warrant or any agreement between the Company and the Holder, the Holder agrees that, as required by FINRA Rule 5110(f)(2)(H): (i) this Warrant may not be exercised more than five years from the Effective Date; (ii) the Holder shall not have more than one demand registration right at the Company's expense; (iii) the Holder shall not have the right to demand registration of this Warrant or the Units more than five years from the earlier of the Effective Date or the commencement of sales of the public offering contemplated by the Placement Agent Agreement; (iv) the Holder shall not have the right to piggyback registration with respect to this Warrant or the Units more than seven years from the earlier of the Effective Date or the commencement of sales of the public offering contemplated by the Placement Agent Agreement; (v) this Warrant may not have anti-dilution terms that allow the Holder and related persons to receive more shares or to exercise at a lower price than originally agreed upon at the time of the public offering, when the public shareholders have not been proportionally affected by a stock split, stock dividend, or other similar event; and (vi) this Warrant may not have anti-dilution terms that allow the Holder and related persons to receive or accrue cash dividends prior to the exercise or conversion of the security.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) Fees and Expenses. The Company shall pay all transfer agent fees, stamp taxes and other taxes and duties levied in connection with the delivery of any securities to the Holder, subject to Section 2(h) hereof.

b) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights or other rights as a stockholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price, the Units so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any certificate relating to the Option Shares and/or Series A Warrants, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of this Warrant or the Series A Warrants, shall not include the posting of any bond), and upon surrender and cancellation of such warrant or stock certificate, if mutilated, the Company will make and deliver a new warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such warrant or stock certificate.

d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a business day, then such action may be taken or such right may be exercised on the next succeeding business day.

e) Authorized Shares. The Company covenants that during the period the Warrant is outstanding, it will maintain a reserve, free from preemption rights, from its duly authorized shares of Common Stock for issuance in such amount as may be required to fulfill its obligations in full under this Warrant and any Series A Warrant issuable hereunder. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates and warrant certificates to execute and issue the necessary certificates for the Option Shares and Series A Warrants upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action

as may be necessary to assure that such Option Shares and Series A Warrants may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. If at any time prior to the Expiration Date the number of authorized but unissued shares of Common Stock shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock (or other securities as provided herein) to such number of shares as shall be sufficient for such purposes.

Except and to the extent as waived or consented to by the Holder, the Company hereby covenants to not by any action, including, without limitation, amending its certificate of incorporation, bylaws or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of the Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Option Shares above the Exercise Price then in effect and (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Option Shares and Series A Warrants upon the exercise of this Warrant.

f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the laws of the State of New York.

g) Restrictions. The Holder acknowledges that the Option Shares and the Series A Warrants acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding the fact that all rights hereunder terminate on the Expiration Date. The Company's obligations to issue and deliver Units in accordance with the terms hereof shall not be affected by the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim or recoupment, or any violation or alleged violation of law by the Holder or any other Person. If the Company or the Holder willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the other party, then such party shall pay the other party such amounts as shall be sufficient to cover any costs and expenses incurred by such party in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

i) Notices. The Company shall provide Holder with prompt written notice of all actions taken pursuant to this Warrant. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in writing, will be mailed (a) if within the domestic United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or (b) if delivered from outside the United States, by International Federal Express or facsimile, and (c) will be deemed given (i) if delivered by first-class registered or certified mail domestic, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express, two business days after so mailed and (iv) if delivered by facsimile, upon electronic confirmation of receipt, and will be delivered and addressed as follows:

(i) if to the Company, to:

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, CA 92008
Attn: Jay Novak, Chief Financial Officer
Facsimile: (760) 476-0600

with a copy to:

DLA Piper LLP
4365 Executive Drive, Suite 1100
San Diego, CA 92121
Attn: Douglas Rein

Facsimile: (858) 638-5043

(ii) if to the Holder, at the address of the Holder appearing on the books of the Company.

j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Units, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

k) Remedies. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available or granted by law, including recovery of damages. Each of the parties hereto will be entitled to specific performance of its rights under this Warrant.

l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Units.

m) Amendment. This Warrant is one of a series of Warrants of like tenor issued by the Company pursuant to the Placement Agent Agreement, dated as of July , 2013, by and between the Company and Roth Capital Partners, LLC (collectively, the "Series B Warrants"). Any term of this Warrant may be amended or waived (including the adjustment provisions included in Section 3 of this Warrant) upon the written consent of the Company and the holders of Series B Warrants representing at least 66 2/3% of the number of Units then subject to all outstanding Series B Warrants (the "Required Holders").

n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: July , 2013

INTERNATIONAL STEM CELL CORPORATION

By: _____

Name:
Title:

EXHIBIT A

Form of Series A Warrant

NOTICE OF EXERCISE

TO: INTERNATIONAL STEM CELL CORPORATION

(1) The undersigned hereby elects to purchase Units of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the Exercise Price in full, together with all applicable transfer taxes, if any. By executing this notice of exercise form, the undersigned Holder represents that it has complied with the percentage limitation provisions of Section 2(c) of this warrant.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ the cancellation of such number of Units as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Units purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue a certificate or certificates representing said securities in the name of the undersigned or in such other name as is specified below:

The Units shall be delivered to the following: _____

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to :

whose address is

_____

_____ .

Dated: _____ __, ____

Holder's Signature:

_____

Holder's Address:

_____

_____

Signature Guaranteed:_____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

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

July 1, 2013

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, CA 92008

Ladies and Gentlemen:

We have acted as counsel to International Stem Cell Corporation, a Delaware corporation (the "***Company***"), in connection with the filing of registration statement on Form S-1 (Reg. No. 333-184493), as amended (the "***Registration Statement***"), under the Securities Act of 1933, as amended (the "***Securities Act***"). The Registration Statement relates to the Company's:

(i) shares (the "***Shares***") of common stock, $0.001 par value per share (the "***Common Stock***");

(ii) Series A Warrants representing rights to purchase Common Stock (the "***Series A Warrants***"), and the shares of Common Stock issuable upon exercise thereof, the "***Warrant Shares***");

(iii) Series B Warrants representing rights to purchase units (the "***Series B Warrants***"), with each unit consisting of one share of Common Stock and one Series A Warrant; and

(iv) Placement Agent Warrants representing rights to purchase units (the "***Placement Agent Warrants***", together with the Series A Warrants and Series B Warrants, the "***Warrants***").

The Shares, Warrant Shares, Series A Warrants, Series B Warrants and Placement Agent Warrants are, collectively, referred to herein as the "***Securities***".

In rendering the opinions set forth below, we have assumed that (i) all information contained in all documents reviewed by us is true and correct; (ii) all signatures on all documents examined by us are genuine; (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents; (iv) each natural person signing any document reviewed by us had the legal capacity to do so; and (v) the certificates or instruments representing the Securities will be duly executed and delivered.

We have examined the Registration Statement, including the exhibits thereto, and such other documents, corporate records, and instruments and have examined such laws and regulations as we have deemed necessary for purposes of rendering the opinions set forth herein. Based

upon such examination and subject to the further provisions hereof, we are of the following opinion:

1. The Shares, when issued, sold and delivered in the manner and for the consideration set forth in the Registration Statement, and the Subscription Agreement, filed as an exhibit to the Registration Statement, entered into with the purchasers of the Shares identified therein, will be validly issued, fully paid and non-assessable; and

2. The Warrants when entered into with the applicable holders in the respective forms filed as exhibits to the Registration Statement, will constitute valid and legally binding obligations of the Company and the Warrant Shares, if and when issued, paid for and delivered in compliance with the terms of the applicable Series A Warrants pursuant to which the Warrant Shares are to be issued, will be validly issued, fully paid and nonassessable.

The foregoing opinions are qualified to the extent that the enforceability of any document, instrument or the Securities may be limited by or subject to bankruptcy, insolvency, fraudulent transfer or conveyance, reorganization, moratorium or other similar laws relating to or affecting creditors' rights generally, and general equitable or public policy principles.

In providing this opinion, we have relied as to certain matters on information obtained from public officials and officers of the Company.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and the reference to us under the caption "Legal Matters" in the prospectus included in the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

This opinion letter is given to you solely for use in connection with the offer and sale of the Securities while the Registration Statement is in effect and is not to be relied upon for any other purpose. Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Securities or the Registration Statement.

Very truly yours,

/s/ DLA Piper LLP (US)

DLA Piper LLP (US)

Exhibit 10.44

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, California 92008

Gentlemen:

The undersigned (the "*Investor*") hereby confirms its agreement with International Stem Cell Corporation, a Delaware corporation (the "*Company*") as follows:

1. This Subscription Agreement, including the Terms and Conditions For Purchase of Securities attached hereto as Annex I (collectively, (this "*Agreement*") is made as of the date set forth below between the Company and the Investor.

2. The Company has authorized the sale and issuance to certain investors of up to an aggregate of (i) — authorized but unissued shares (the "*Firm Shares*") of common stock, par value $0.001 per share (the "*Common Stock*"), of the Company, (ii) Series A Warrants (the "*Firm Series A Warrants*") to purchase an aggegate of up to — authorized but unissued shares of Common Stock (the "*Firm Series A Warrant Shares*"), and (iii) — warrants (the "*Series B Warrants*") to purchase an aggregate of up to (A) — authorized but unissued shares of Common Stock (the "*Option Shares*") and (B) Series A Warrants (the "*Option Series A Warrants*") to purchase up to — authorized but unissued shares of Common Stock (the "*Option Series A Warrant Shares*"). The Firm Shares and the Firm Series A Warrants shall be sold together as units (the "*Firm Units*"), each Firm Unit consisting of one Firm Share and — of one Firm Series A Warrant to purchase one share of Common Stock. The Firm Units will not be separately issued or certificated and the Firm Shares and the Firm Series A Warrants shall be immediately separable and transferable upon issuance. The Firm Units and the Series B Warrants are hereinafter referred to as the "*Firm Securities*." The form of the Series A Warrant is attached hereto as Exhibit B. The form of the Series B Warrant is attached hereto as Exhibit C. Each Investor will receive Units and Series B Warrants at a public offering price of $— (the "*Purchase Price*") per Unit and related Series B Warrant. The Option Shares and the Option Series A Warrants issuable upon the exercise of the Series B Warrants are hereinafter referred to as "*Option Units*", each Option Unit consisting of one Option Share and — of one Option Series A Warrant to purchase one share of Common Stock. The Option Units will not be separately issued or certificated and the Option Shares and the Option Series A Warrants shall be immediately separable and transferable upon issuance. The Firm Units and the Option Units are collectively referred to as the "*Units*." The Firm Shares and the Option Shares are collectively referred to as the "*Shares*." The Firm Series A Warrants and the Option Series A Warrants are collectively referred to as the "*Series A Warrants*." The Firm Series A Warrant Shares and the Option Series A Warrant Shares are collectively referred to as the "*Series A Warrant Shares*." The Series A Warrants and the Series B Warrants are collectively referred to as the "*Warrants*." The Units, the Shares, the Warrants and the Series A Warrant Shares are collectively referred to as the "*Securities*."

3. The offering and sale of the Securities (the "*Offering*") are being made pursuant to (1) an effective Registration Statement on Form S-1, File No. 333-184493 (the "*Registration Statement*") filed by the Company with the Securities and Exchange Commission (the "*Commission*") (including the prospectus contained therein (the "*Prospectus*") and (2) if

applicable, certain "free writing prospectuses" (as that term is defined in Rule 405 under the Securities Act of 1933, as amended (the "*Securities Act*")), that have been or will be filed with the Commission and delivered to the Investor on or prior to the date hereof (the "*Issuer Free Writing Prospectus*"), containing certain supplemental information regarding the Securities, the terms of the Offering and the Company.

4. The Company and the Investor agree that the Investor will purchase from the Company and the Company will issue and sell to the Investor the Firm Securities set forth below for the aggregate Purchase Price set forth below. The Firm Securities shall be purchased pursuant to the Terms and Conditions for Purchase of Securities attached hereto as Annex I and incorporated herein by this reference as if fully set forth herein. The Investor acknowledges that the Offering is not being underwritten by the placement agent (the "*Placement Agent*") named in the Prospectus and that there is no minimum offering amount.

5. The manner of settlement of the Firm Shares purchased by the Investor shall be determined by such Investor as follows (check one):

[ ] A. Delivery by crediting the account of the Investor's prime broker (as specified by such Investor on Exhibit A annexed hereto) with the Depository Trust Company ("*DTC*") through its Deposit/Withdrawal At Custodian ("*DWAC*") system, whereby Investor's prime broker shall initiate a DWAC transaction on the Closing Date using its DTC participant identification number, and released by —, the Company's transfer agent (the "*Transfer Agent*"), at the Company's direction. **NO LATER THAN ONE (1) BUSINESS DAY AFTER THE EXECUTION OF THIS AGREEMENT BY THE INVESTOR AND THE COMPANY, THE INVESTOR SHALL:**

(I) DIRECT THE BROKER-DEALER AT WHICH THE ACCOUNT OR ACCOUNTS TO BE CREDITED WITH THE FIRM SHARES ARE MAINTAINED TO SET UP A DWAC INSTRUCTING THE TRANSFER AGENT TO CREDIT SUCH ACCOUNT OR ACCOUNTS WITH THE FIRM SHARES, AND

(II) REMIT BY WIRE TRANSFER THE AMOUNT OF FUNDS EQUAL TO THE AGGREGATE PURCHASE PRICE FOR THE FIRM SECURITIES BEING PURCHASED BY THE INVESTOR TO THE FOLLOWING ACCOUNT:

To be separately provided to the Investor

—OR—

[ ] B. Delivery versus payment ("*DVP*") through DTC (i.e., on the Closing Date, the Company shall issue Firm Shares registered in the Investor's name and address as set forth below and released by the Transfer Agent directly to the account(s) at Roth Capital Partners, LLC ("*Roth*") identified by the Investor; upon receipt of such Firm Shares, Roth shall promptly electronically deliver such Firm Shares to the Investor, and simultaneously therewith payment shall be made by Roth by wire transfer to the Company). **NO LATER THAN ONE (1) BUSINESS DAY**

AFTER THE EXECUTION OF THIS AGREEMENT BY THE INVESTOR AND THE COMPANY, THE INVESTOR SHALL:

(III) NOTIFY ROTH OF THE ACCOUNT OR ACCOUNTS AT ROTH TO BE CREDITED WITH THE FIRM SHARES BEING PURCHASED BY SUCH INVESTOR, AND

(IV) CONFIRM THAT THE ACCOUNT OR ACCOUNTS AT ROTH TO BE CREDITED WITH THE FIRM SHARES BEING PURCHASED BY THE INVESTOR HAVE A MINIMUM BALANCE EQUAL TO THE AGGREGATE PURCHASE PRICE FOR THE FIRM SECURITIES BEING PURCHASED BY THE INVESTOR.

IT IS THE INVESTOR'S RESPONSIBILITY TO (A) MAKE THE NECESSARY WIRE TRANSFER OR CONFIRM THE PROPER ACCOUNT BALANCE IN A TIMELY MANNER AND (B) ARRANGE FOR SETTLEMENT BY WAY OF DWAC OR DVP IN A TIMELY MANNER. IF THE INVESTOR DOES NOT DELIVER THE AGGREGATE PURCHASE PRICE FOR THE FIRM SECURITIES OR DOES NOT MAKE PROPER ARRANGEMENTS FOR SETTLEMENT IN A TIMELY MANNER, THE FIRM SECURITIES MAY NOT BE DELIVERED AT CLOSING TO THE INVESTOR OR THE INVESTOR MAY BE EXCLUDED FROM THE CLOSING ALTOGETHER.

6. The executed Firm Series A Warrants and Series B Warrants shall be delivered to the Investor by mail, registered in such names and sent to such address as specified by the Investor below.

7. The Investor represents that, except as set forth below, (a) it has had no position, office or other material relationship within the past three years with the Company or persons known to it to be affiliates of the Company, (b) it is not a member of the Financial Industry Regulatory Authority, Inc. ("*FINRA*") or an Associated Person (as such term is defined under the FINRA's NASD Membership and Registration Rules Section 1011) as of the Closing, and (c) neither the Investor nor any group of Investors (as identified in a public filing made with the Commission) of which the Investor is a part in connection with the Offering, acquired, or obtained the right to acquire, 20% or more of the Common Stock (or securities convertible into or exercisable for Common Stock) or the voting power of the Company on a post-transaction basis. Exceptions:

_____

(If no exceptions, write "none." If left blank, response will be deemed to be "none.")

8. The Investor represents that it has received (or otherwise had made available to it by the filing by the Company of an electronic version thereof with the Commission) the Prospectus, dated July •, 2013, which is a part of the Company's Registration Statement, the documents incorporated by reference therein and any free writing prospectus (collectively, the "*Disclosure Package*"), prior to or in connection with the receipt of this Agreement. The Investor acknowledges that, prior to the delivery of this Agreement to the Company, the Investor will receive certain additional information regarding the Offering, including pricing information (the

"*Offering Information*"). Such information may be provided to the Investor by any means permitted under the Securities Act, including a free writing prospectus and oral communications.

9. No offer by the Investor to buy Firm Securities will be accepted and no part of the Purchase Price will be delivered to the Company until the Investor has received the Offering Information and the Company has accepted such offer by countersigning a copy of this Agreement, and any such offer may be withdrawn or revoked, without obligation or commitment of any kind, at any time prior to the Company (or Roth on behalf of the Company) sending (orally, in writing or by electronic mail) notice of its acceptance of such offer. An indication of interest will involve no obligation or commitment of any kind until the Investor has been delivered the Offering Information and this Agreement is accepted and countersigned by or on behalf of the Company.

10. The Company acknowledges that the only material, non-public information relating to the Company or its subsidiaries that the Company, its employees or agents has provided to the Investor in connection with the Offering prior to the date hereof is the existence of the Offering.

Number of Firm Units and Series B Warrants: _____

Purchase Price per Firm Unit and related Series B Warrant: $_____

Aggregate Purchase Price: $_____

Number of Firm Series A Warrant Shares subject to Firm Series A Warrants (Equal to Number of Firm Shares):_____

Number of Optional Units subject to Series B Warrants: _____

Please confirm that the foregoing correctly sets forth the agreement between us by signing in the space provided below for that purpose.

Dated as of: July —, 2013

INVESTOR

By: _____
Print Name: _____
Title: _____
Address: _____

Agreed and Accepted
this — day of July, 2013:

INTERNATIONAL STEM CELL CORPORATION

By: _____
Title:

ANNEX I

TERMS AND CONDITIONS FOR PURCHASE OF SECURITIES

1. Authorization and Sale of the Securities. Subject to the terms and conditions of this Agreement, the Company has authorized the sale of the Securities.

2. Agreement to Sell and Purchase the Securities; Placement Agent.

2.1 At the Closing (as defined in Section 3.1), the Company will sell to the Investor, and the Investor will purchase from the Company, upon the terms and conditions set forth herein, the number of Firm Securities set forth on the last page of the Agreement to which these Terms and Conditions for Purchase of Securities are attached as Annex I (the "*Signature Page*") for the aggregate purchase price therefor set forth on the Signature Page.

2.2 The Company proposes to enter into substantially this same form of Subscription Agreement with certain other investors (the "*Other Investors*") and expects to complete sales of Firm Securities to them. The Investor and the Other Investors are hereinafter sometimes collectively referred to as the "*Investors,*" and this Agreement and the Subscription Agreements executed by the Other Investors are hereinafter sometimes collectively referred to as the "*Agreements.*"

2.3 Investor acknowledges that the Company has agreed to pay Roth Capital Partners, LLC (the "*Placement Agent*") a fee (the "*Placement Fee*") and to reimburse the Placement Agent for certain expenses in respect of the sale of the Firm Securities to the Investor.

2.4 The Company has entered into a Placement Agent Agreement, dated the date hereof, (the "*Placement Agreement*"), with the Placement Agent that contains certain representations, warranties, covenants and agreements of the Company that may be relied upon by the Investor, which shall be a third party beneficiary thereof. The Company confirms that neither it nor any other Person acting on its behalf has provided the Investor or their agents or counsel with any information that constitutes or could reasonably be expected to constitute material, nonpublic information, except as will be disclosed in the Prospectus and/or in the Company's Form 8-K to be filed with the Commission in connection with the Offering. The Company understands and confirms that the Investor will rely on the foregoing representations in effecting transactions in securities of the Company.

3. Closings and Delivery of the Securities and Funds.

3.1 Closing. The completion of the purchase and sale of the Firm Securities (the "*Closing*") shall occur at a place and time (the "*Closing Date*") to be specified by the Company and the Placement Agent, and of which the Investors will be notified in advance by the Placement Agent, in accordance with Rule 15c6-1 promulgated under the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"). At the Closing, (a) the Company shall cause Securities Transfer Corporation, the Company's "*Transfer Agent*", to deliver to the Investor the number of Firm Shares included in the Firm Units set forth on the Signature Page registered in the name of the Investor or, if so indicated on the Investor Questionnaire attached hereto as Exhibit A, in the name of a nominee designated by the Investor, (b) the Company shall cause to be delivered to the Investor a Firm Series A Warrant for the number of Firm Series A Warrant

Shares included in the Firm Units set forth on the Signature Page, the Company shall cause to be delivered to the Investor a Series B Warrant for the number of Option Units set forth on the Signature Page and (d) the aggregate purchase price for the Firm Securities being purchased by the Investor will be delivered by or on behalf of the Investor to the Company.

3.2 Conditions to the Obligations of the Parties.

3.3(a) **Conditions to the Company's Obligations**. The Company's obligation to issue and sell the Firm Securities to the Investor shall be subject to: (i) the receipt by the Company of the purchase price for the Firm Securities being purchased hereunder as set forth on the Signature Page and (ii) the accuracy of the representations and warranties made by the Investor and the fulfillment of those undertakings of the Investor to be fulfilled prior to the Closing Date.

3.4(b) **Conditions to the Investor's Obligations**. The Investor's obligation to purchase the Firm Securities will be subject to the accuracy of the representations and warranties made by the Company and the fulfillment of those undertakings of the Company to be fulfilled prior to the Closing Date, including without limitation, those contained in the Placement Agreement, and to the condition that the Placement Agent shall not have: (a) terminated the Placement Agreement pursuant to the terms thereof or (b) determined that the conditions to the closing in the Placement Agreement have not been satisfied. The Investor's obligations are expressly not conditioned on the purchase by any or all of the Other Investors of the Firm Securities that they have agreed to purchase from the Company. The Investor understands and agrees that, in the event that the Placement Agent in its sole discretion determines that the conditions to closing in the Placement Agreement have not been satisfied or if the Placement Agreement may be terminated for any other reason permitted by such Placement Agreement, then the Placement Agent may, but shall not be obligated to, terminate such Agreement, which shall have the effect of terminating this Subscription Agreement pursuant to Section 14 below.

3.5 Delivery of Funds.

(a) DWAC Delivery. If the Investor elects to settle the Firm Shares purchased by such Investor through DTC's Deposit/Withdrawal at Custodian ("DWAC") delivery system, **no later than one (1) business day after the execution of this Agreement by the Investor and the Company**, the Investor shall remit by wire transfer the amount of funds equal to the aggregate purchase price for the Firm Securities being purchased by the Investor to the following account designated by the Company:

To be separately provided to the Investor

(b) Delivery Versus Payment through The Depository Trust Company. If the Investor elects to settle the Firm Shares purchased by such Investor by delivery versus payment through DTC, **no later than one (1) business day after the execution of this Agreement by the Investor and the Company,** the Investor shall confirm that the account or accounts at the Placement Agent to be credited with the Firm Shares being purchased by the Investor have a minimum balance equal to the aggregate purchase price for the Firm Securities being purchased by the Investor.

3.6 Delivery of Firm Shares.

(a) DWAC Delivery. If the Investor elects to settle the Firm Shares purchased by such Investor through DTC's DWAC delivery system, **no later than one (1) business day after the execution of this Agreement by the Investor and the Company,** the Investor shall direct the broker-dealer at which the account or accounts to be credited with the Firm Shares being purchased by such Investor are maintained, which broker/dealer shall be a DTC participant, to set up a DWAC instructing the Transfer Agent to credit such account or accounts with the Firm Shares. Such DWAC instruction shall indicate the settlement date for the deposit of the Firm Shares, which date shall be provided to the Investor by the Placement Agent. Upon the closing of the Offering, the Company shall direct the Transfer Agent to credit the Investor's account or accounts with the Firm Shares pursuant to the information contained in the DWAC.

(b) Delivery Versus Payment through The Depository Trust Company. If the Investor elects to settle the Firm Shares purchased by such Investor by delivery versus payment through DTC, **no later than one (1) business day after the execution of this Agreement by the Investor and the Company,** the Investor shall notify the Placement Agent of the account or accounts at the Placement Agent to be credited with the Firm Shares being purchased by such Investor. On the Closing Date, the Company shall deliver the Firm Shares to the Investor through DTC directly to the account(s) at the Placement identified by Investor. Upon receipt of such Firm Shares, the Placement Agent shall promptly electronically deliver such Firm Shares to the Investor, and simultaneously therewith payment shall be made by the Placement Agent by wire transfer to the Company.

4. Representations, Warranties and Covenants of the Investor.

The Investor acknowledges, represents and warrants to, and agrees with, the Company and the Placement Agent that:

4.1 The Investor (a) is knowledgeable, sophisticated and experienced in making, and is qualified to make decisions with respect to, investments in securities presenting an investment decision like that involved in the purchase of the Securities, including investments in securities issued by the Company and investments in comparable companies, (b) has answered all questions on the Signature Page and the Investor Questionnaire and the answers thereto are true and correct as of the date hereof and will be true and correct as of the Closing Date and (c) in connection with its decision to purchase the Firm Securities set forth on the Signature Page, has received and is relying only upon the Disclosure Package and the documents incorporated by reference therein and the Offering Information.

4.2 (a) No action has been or will be taken in any jurisdiction outside the United States by the Company or the Placement Agent that would permit an offering of the Securities, or possession or distribution of offering materials in connection with the issue of the Securities in any jurisdiction outside the United States where action for that purpose is required, (b) if the Investor is outside the United States, it will comply with all applicable laws and regulations in each foreign jurisdiction in which it purchases, offers, sells or delivers Securities or has in its possession or distributes any offering material, in all cases at its own expense and (c) the Placement Agent is not authorized to make and has not made any

representation, disclosure or use of any information in connection with the issue, placement, purchase and sale of the Securities, except as set forth or incorporated by reference in the Registration Statement, Prospectus or any free writing prospectus.

4.3 (a) The Investor has full right, power, authority and capacity to enter into this Agreement and to consummate the transactions contemplated hereby and has taken all necessary action to authorize the execution, delivery and performance of this Agreement, and (b) this Agreement constitutes a valid and binding obligation of the Investor enforceable against the Investor in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) and except as to the enforceability of any rights to indemnification or contribution that may be violative of the public policy underlying any law, rule or regulation (including any federal or state securities law, rule or regulation).

4.4 The Investor understands that nothing in this Agreement, the Prospectus, the Disclosure Package, the Offering Information or any other materials presented to the Investor in connection with the purchase and sale of the Units constitutes legal, tax or investment advice. The Investor has consulted such legal, tax and investment advisors and made such investigation as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of Units. The Investor also understands that there is no established public trading market for the Warrants, and that the Company does not expect such a market to develop. In addition, the Company does not intend to apply for listing of the Warrants on any securities exchange. The Investor understands that without an active market, the liquidity of the Warrants will be limited.

4.5 The Investor will maintain the confidentiality of all information acquired as a result of the transactions contemplated hereby prior to the public disclosure of that information by the Company in accordance with Section 13 of this Annex.

4.6 Since the time at which the Placement Agent first contacted such Investor about the Offering, the Investor has not disclosed any information regarding the Offering to any third parties (other than its legal, accounting and other advisors) and has not engaged in any purchases or sales of the securities of the Company (including, without limitation, any Short Sales (as defined herein) involving the Company's securities). The Investor covenants that it will not engage in any purchases or sales of the securities of the Company (including Short Sales) prior to the time that the transactions contemplated by this Agreement are publicly disclosed. The Investor agrees that it will not use any of the Securities acquired pursuant to this Agreement to cover any short position in the Common Stock if doing so would be in violation of applicable securities laws. For purposes hereof, "Short Sales" include, without limitation, all "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, whether or not against the box, and all types of direct and indirect stock pledges, forward sales contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) and similar arrangements (including on a total return basis), and sales and other transactions through non-U.S. broker dealers or foreign regulated brokers.

5. Survival of Representations, Warranties and Agreements; Third Party Beneficiary. Notwithstanding any investigation made by any party to this Agreement or by the Placement Agent, all covenants, agreements, representations and warranties made by the Company and the Investor herein will survive the execution of this Agreement, the delivery to the Investor of the Firm Securities being purchased and the payment therefor. The Placement Agent shall be a third party beneficiary with respect to the representations, warranties and agreements of the Investor in Section 4 hereof.

6. Notices. All notices, requests, consents and other communications hereunder will be in writing, will be mailed (a) if within the domestic United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or (b) if delivered from outside the United States, by International Federal Express or facsimile, and will be deemed given (i) if delivered by first-class registered or certified mail domestic, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express, two business days after so mailed and (iv) if delivered by facsimile, upon electronic confirmation of receipt and will be delivered and addressed as follows:

(a) if to the Company, to:

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, California 92008
Attention: Chief Financial Officer
Facsimile: (760) 476-0600

with a copy (which shall not constitute notice) to:

DLA Piper LLP
4365 Executive Drive, Suite 1100
San Diego, California 92121
Attention: Douglas Rein
Fax: (858) 638-5043

(b) if to the Investor, at its address on the Signature Page hereto, or at such other address or addresses as may have been furnished to the Company in writing.

7. Changes. This Agreement may not be modified or amended except pursuant to an instrument in writing signed by the Company and the Investor.

8. Headings. The headings of the various sections of this Agreement have been inserted for convenience of reference only and will not be deemed to be part of this Agreement.

9. Severability. In case any provision contained in this Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein will not in any way be affected or impaired thereby.

10. Governing Law. This Agreement will be governed by, and construed in accordance with, the internal laws of the State of New York, without giving effect to the principles of conflicts of law that would require the application of the laws of any other jurisdiction.

11. Counterparts. This Agreement may be executed in two or more counterparts, each of which will constitute an original, but all of which, when taken together, will constitute but one instrument, and will become effective when one or more counterparts have been signed by each party hereto and delivered to the other parties. The Company and the Investor acknowledge and agree that the Company shall deliver its counterpart to the Investor along with the Prospectus (or the filing by the Company of an electronic version thereof with the Commission).

12. Confirmation of Sale. The Investor acknowledges and agrees that such Investor's receipt of the Company's signed counterpart to this Agreement, together with the Prospectus (or the filing by the Company of an electronic version thereof with the Commission), shall constitute written confirmation of the Company's sale of the Firm Securities to such Investor.

13. Press Release. The Company and the Investor agree that the Company shall (a) prior to the opening of the financial markets in New York City on July —, 2013 issue a press release announcing the Offering and disclosing all material information regarding the Offering, not previously disclosed, permitted under existing SEC rules applicable to press releases, and (b) as promptly as practicable on July —, 2013 file a current report on Form 8-K with the Securities and Exchange Commission.

14. Termination. In the event that the Placement Agreement is terminated by the Placement Agent pursuant to the terms thereof, this Agreement shall terminate without any further action on the part of the parties hereto.

EXHIBIT A

INTERNATIONAL STEM CELL CORPORATION

INVESTOR QUESTIONNAIRE

Pursuant to Section 3 of Annex I to the Agreement, please provide us with the following information:

1. The exact name that your Firm Securities are to be registered in. You may use a nominee name if appropriate: _____
2. The relationship between the Investor and the registered holder listed in response to item 1 above: _____
3. The mailing address of the registered holder listed in response to item 1 above: _____
4. The Social Security Number or Tax Identification Number of the registered holder listed in the response to item 1 above: _____
5. Name of DTC Participant (broker-dealer at which the account or accounts to be credited with the Firm Shares are maintained): _____
6. DTC Participant Number: _____
7. Name of Account at DTC Participant being credited with the Firm Shares: _____
8. Account Number at DTC Participant being credited with the Firm Shares: _____

EXHIBIT B

FORM OF SERIES A WARRANT

EXHIBIT C

FORM OF SERIES B WARRANT

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the use of our report dated March 25, 2013, relating to the consolidated financial statements of **International Stem Cell Corporation and Subsidiaries**, a development stage company, (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, 2012 and 2011 and cumulatively for the period from January 1, 2011 to December 31, 2012, included in or made a part of this Amendment No. 4 to Registration Statement No. 333-184493 on Form S-1/A, and to all references to our Firm included in this Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California
July 1, 2013

Exhibit 23.2

VASQUEZ & COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS AND BUSINESS CONSULTANTS
801 South Grand Avenue, Suite 400 • Los Angeles, CA 90017-4646 • Ph. (213) 873-1700 • Fax (213) 873-1777 • www.vasquezcpa.com

Consent of Independent Registered Public Accounting Firm

International Stem Cell Corporation
Carlsbad, California

We hereby consent to the use in this Amendment No. 4 to Registration Statement No. 333-184493 on Form S-1 of our report dated March 24, 2011 (except for notes 1, 2 and 10, as to which the date is June 22, 2011) relating to the consolidated financial statements of International Stem Cell Corporation and Subsidiaries (the Company), which appears on Page F-37 of the Registration Statement.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

Vasquez & Company LLP
Los Angeles, California
July 1, 2013