As filed with the Securities and Exchange Commission on October 18, 2012

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form S-1
REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

INTERNATIONAL STEM CELL CORPORATION

(Exact name of registrant as specified in its charter)

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

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

LINH NGUYEN
5950 Priestly Drive
Carlsbad, CA 92008
(760) 940-6383
(Name, address and telephone number of agent for service)

Copies to:

DOUGLAS REIN
DLA PIPER LLP (US)
4365 Executive Drive, Suite 1100
San Diego, CA 92121-2133
(858) 677-1443

Approximate date of commencement of proposed sale to the public: 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	**Amount to be Registered (1)**	**Proposed Maximum Offering Price Per Security (2)**	**Proposed Maximum Aggregate Offering Price (2)**	**Amount of Registration Fee**
Shares of Common Stock, par value $0.001 per share		$	$	$
Warrants to purchase shares of common stock (3)		—	—	—
Shares of Common Stock issuable upon exercise of the Warrants		$	$	$
Placement Agent Warrants to purchase shares of common stock (3)				
Shares of Common Stock issuable upon exercise of the Placement Agent Warrants		$	$	$
Total		$	$15,000,000	$2,046.00

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

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

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.

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 OCTOBER 18, 2012

INTERNATIONAL STEM CELL CORPORATION

PROSPECTUS

Shares of Common Stock
Warrants to purchase Shares of Common Stock
Shares of Common Stock underlying the Warrants

We are offering up to shares of our common stock, and warrants to purchase up to shares of our common stock at an exercise price of $ per share, subject to adjustment. Purchasers of our common stock will automatically receive a warrant to purchase share of our common stock for every shares of common stock that they purchase in this offering without the payment of additional consideration for the warrant. The warrants will be exercisable on or after the applicable closing date of this offering and through and including the close of business on , 20 .

We are not required to sell any specific dollar amount or number of securities, but will use our best efforts to sell all of the securities being offered. There may be one or more closings of the offering. This offering will terminate on , unless the offering is fully subscribed before that date or we decide to terminate the offering prior to that date. All funds received from investors will be placed in a non-interest bearing escrow account with , which we refer to as the escrow agent. If we do not have a first closing by , 2012, we will return your investment to you without interest and without any other offset within two business days. All costs associated with the registration will be borne by us.

Our common stock is quoted on the OTC QB and trades under the symbol "ISCO". We do not intend to apply for listing of the warrants on any securities exchange, and we do not expect that the warrants will be quoted on the OTC QB. The last reported sale price of our common stock on 2012 on the OTC QB was $ per share.

	Per Share	Total
Offering Price per Share	$	$
Placement Agent's Fees	$	$
Offering Proceeds, before expenses	$	$

CRT Capital Group, LLC has agreed to act as our exclusive advisor and 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 "best efforts" basis. We have agreed to pay the placement agent a cash fee equal to % of the gross proceeds of the offering of securities by us and to issue the placement agent warrants to purchase shares of our common stock equal to % of the aggregate number of shares of common stock included in shares sold in the offering. The placement agent warrants will have terms substantially similar to the warrants being offered hereby to purchasers of our common stock, except that the placement agent warrants will have a term of years from the effective date of the registration statement of which this prospectus is a part and will otherwise comply with FINRA Rule 5110 (g)(1). We estimate the total expenses of this offering, excluding the placement agent fees, will be approximately $. Because there is no minimum offering amount required as a condition to closing 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 amount set forth above. See "Plan of Distribution" beginning on page 19 of this prospectus for more information on this offering and the placement agent arrangements.

Investing in the securities involves substantial risks. Before making any investment in the securities, you should read and carefully consider the risks described in this prospectus under See "Risk Factors" beginning on page 4 of this prospectus.

You should rely only on the information contained in this prospectus or any prospectus supplement or amendment thereto. We have not authorized anyone to provide you with different information.

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

CRT Capital

Sole Placement Agent

The date of this prospectus is , 2012.

INTERNATIONAL STEM CELL CORPORATION HAS NOT REGISTERED THE SECURITIES FOR SALE UNDER THE SECURITIES LAWS OF ANY STATE. OFFERS AND SALES WILL ONLY BE MADE BY US OR THE PLACEMENT AGENT IN JURISDICTIONS WHERE THE PLACEMENT AGENT BELIEVES THERE ARE EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENT 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 SHARES AND WARRANTS. 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 may rely only on the information contained in this prospectus or that we have referred you to. We have not authorized anyone to provide you with different information. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the securities offered by this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities in any circumstances in which such offer or solicitation is unlawful. 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

Business Overview

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

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 they offer potential for creation of immune-matched cells and tissues that are less likely to be rejected following transplantation into people across various ethnic groups. We have facilities and manufacturing protocols that comply with the requirements of the US Food and Drug Administration ("FDA") and other regulatory authorities.

With respect to therapeutic research, we focus on applications where cell and tissue therapy has been shown to be effective but where there is an insufficient supply of safe and functional cells or tissue. We believe that the most promising potential clinical applications of our technology are: 1) Parkinson's disease, a chronic neurodegenerative disease; 2) various inherited/metabolic liver diseases; and 3) corneal blindness.

Our wholly-owned subsidiary Lifeline Skin Care, Inc. ("LSC") develops, manufactures and markets cosmetic skin care products using an extract derived from our human stem cell technologies. These products are regulated as cosmetics. Furthermore, we market and sell LSC products direct to the consumer via the internet as well as through channels such as dermatology clinics and spas, thus providing important revenue to help support our internal development of therapeutic products. LSC currently sells its products nationally and internationally through a branded website and select distributors.

Our wholly-owned subsidiary Lifeline Cell Technology, LLC ("LCT") develops, manufactures and commercializes human cells and the reagents needed to culture and study human cells. 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. LCT also provides important funds to help support our internal development of therapeutic products. LCT's 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 revenue to support our core therapeutic research and development efforts.

Our principal executive offices are located at 5950 Priestly Drive, Carlsbad, California 92008, and our telephone number is (760) 940-6383. Our website address is www.internationalstemcell.com.

The Offering

Securities offered	Up to shares of our common stock, and warrants to purchase up to shares of our common stock. Purchasers of our common stock will automatically receive a warrant to purchase share of common stock for every shares of common stock that they purchase in this offering without payment of additional consideration for the warrant.
Offering price	$ per share of common stock.
Common stock outstanding prior to offering	87,238,815 shares (1)
Common stock to be outstanding after the offering	shares (2)
Use of proceeds	We expect to use the proceeds received from the offering to fund our research and development activities, including those involving our and non-human efficacy pre-clinical studies for the Parkinson's disease and endoderm programs and for general working capital needs.
OTC QB Symbol	ISCO
Risk Factors	Investing in the securities involves substantial risks. See "Risk Factors" beginning on page 4 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) The total number of shares of our common stock outstanding as of , 2012 is , and excludes:

- 24,225,007 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;
- 3,330,000 additional shares of common stock reserved for issuance under various outstanding warrant agreements, 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;
- 38,973,200 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series B, Series C, Series D and Series G Preferred Stock; and
- 16,147,105 additional shares of common stock reserved for future issuance under our 2006 and 2010 stock option plans.

(2) Assumes the sale of all shares of common stock covered by this prospectus. Excludes the up to shares of common stock that could be issued upon exercise of the warrants sold as part of this offering.

Unless otherwise specifically stated, information throughout this prospectus does not assume the exercise of outstanding options or warrants to purchase shares of our common 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, 2011 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 2011, 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 current burn rate is approximately $625,000 per month excluding capital expenditures and patent costs averaging $75,000 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 2012. 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 2012 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 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.

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.

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.

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 parthenogenic 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.

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.

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.

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.

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.

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.

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 all of the outstanding shares of our Series C, Series D and Series G Preferred Stock, which could be converted into approximately 32% of our outstanding shares of common stock as of , 2012. 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 seven 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 four 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 four separate series of outstanding preferred stock, including Series B, Series C, Series D and Series G Preferred Stock, which have various rights and preferences senior to the shares of common stock. If the Company declares and pays a dividend on our common stock, shares of our Series B and Series C Preferred Stock are entitled to share in such dividends on a pro rata as-if-converted to common stock basis. 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 $0.25 to $0.40 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 may 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 four series of preferred stock that remain outstanding, including Series B, Series C, Series D and Series G Preferred Stock. The terms of the Series B, Series C, 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 C, 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.

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, the Company 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 October 18, 2012, we have sold Aspire Capital 9,333,333 shares of common stock for aggregate proceeds of $5,942,460.00, and we may sell Aspire Capital up to an additional $19,057,540.00 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.

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, certify the effectiveness of those controls and obtain an opinion by our independent registered public accountants. 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 sale by us of up to shares of our common in this offering at a public offering price of $ per share, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, investors in this offering can expect an immediate dilution of $ per share, or %, at the public offering price. In addition, we are issuing warrants to purchase up to shares of our common stock to purchasers in this offering and, in the past, we issued options and warrants to acquire shares of common stock. To the extent these options and warrants are ultimately exercised, you will sustain future dilution. We may also acquire or license other technologies or finance strategic alliances by issuing equity, which may result in additional dilution to our stockholders.

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. 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 2010 and 2011, 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.

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 3 of this Prospectus.

USE OF PROCEEDS

We estimate that we will receive up to $ million in net proceeds from the sale of the securities in this offering, based on a price of $ per share of our common stock and after deducting placement agent fees and estimated offering expenses payable by us and assuming the sale of all of the securities offered in this offering. 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.

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 securities subject to this offering on favorable terms, of which there can be no assurance, 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):

Research involving the rodent and non-human efficacy studies for the Parkinson’s disease and endoderm programs	$
Development of commercial research products	$
Other research and development programs	$
General working capital purposes	$
Maximum net proceeds of the offering	$

We will have significant discretion in the use of any net proceeds. We may invest the net proceeds received from this offering temporarily until we use them for their stated purpose.

DILUTION

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. As of , our net tangible book value was $, or $ per share of common stock, based upon shares outstanding as of that date.

Net tangible book value dilution per share represents the difference between the amount per share of common stock paid by the new investors who purchase shares of our common stock in this offering and the pro forma net tangible book value per share in common stock immediately after completion of this offering, assuming no value is attributed to the warrants. After giving effect to our sale of the shares of common stock at a public offering price of $ per share, as of , 2012, and after deducting placement agent commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of , 2012 would have been $ million, or $ per share. This represents an immediate increase of net tangible book value of $ per share to our existing shareholders and an immediate dilution in net tangible book value of $ per share to purchasers of securities in this offering. The following table illustrates this per share dilution:

	Adjusted
Assumed public offering price per share of common stock	$
Net tangible book value per share as of , 2012	
Increase attributable to the sale of shares to investors in this offering	
Adjusted net tangible book value per share after this offering	
Dilution in net tangible book value per share to new investors	

The foregoing discussion and illustration do not reflect potential dilution from (i) the exercise of outstanding options or warrants to purchase shares of our common stock, (ii) shares of common stock reserved for future issuance under or 2006 and 2010 stock option plans or (iii) the conversion of our outstanding shares of Series B preferred stock, Series C preferred stock, Series D preferred stock or Series G preferred stock into common stock.

DESCRIPTION OF CAPITAL STOCK

The following summary describes the material terms of our 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 , 2012, there were issued and outstanding shares of common stock, warrants to purchase shares of common stock, shares of Series B preferred stock, shares of Series C preferred stock, shares of Series D preferred stock and 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.

Warrants to Purchase Shares of Common Stock to be Issued as a Part of this Offering

The warrants to purchase shares of common stock to be issued as a part of this offering will be issued in the form that will be filed as an exhibit to the registration statement of which this prospectus is a part. You should review a copy of the form of warrant for a complete description of the terms and conditions applicable to the warrants. The following is a brief summary of the warrants and is subject in all respects to the provisions contained in the form of warrant.

Each warrant represents the right to purchase one share of common stock at an exercise price equal to $ per share, subject to adjustment as described below. Each warrant may be exercised on or after the applicable closing date of this offering through and including the close of business on , 20 . The warrant will have a cashless exercise right in the event that the common stock underlying the Warrants are not covered by an effective registration statement at the time of such exercise.

The exercise price and the number of shares underlying the warrants are subject to appropriate adjustment in the event of stock splits, stock dividends on our common stock, stock combinations or similar events affecting our common stock. In addition, in the event we consummate any merger, consolidation, sale or other reorganization

event in which our common stock is converted into or exchanged for securities, cash or other property or we consummate a sale of substantially all of our assets, then following such event, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property which the holders would have received had they exercised the warrants immediately prior to such reorganization event. In addition, if we are acquired by a company that does not have a market for its common stock, the holder of the warrant may require us to repurchase the warrant at its then fair value using the Black Scholes option pricing formula.

No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the market value of a share of common stock. A warrant may be transferred by a holder, upon surrender of the warrant, properly endorsed (by the holder executing an assignment in the form attached to the warrant). The warrants will not be listed on any securities exchange or automated quotation system and we do not intend to arrange for any exchange or quotation system to list or quote the warrants.

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 issued shares of Series A, Series B, Series C, Series D and Series G Preferred Stock. These classes of preferred stock include voting rights, including the right to vote as a series on particular matters, preferences as to dividends and liquidation, conversion rights, redemption rights and sinking fund provisions.

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 June 30, 2012 and December 31, 2011, the Company had 300,000 shares of the Series B Preferred Stock issued and outstanding.

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 June 30, 2012 and December 31, 2011, we had 2,000,000 shares of the Series C Preferred Stock issued and outstanding.

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 June 30, 2012 and December 31, 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 June 30, 2012 and December 31, 2011, Series D Preferred Stock dividends of $64,000 and $108,000 were accrued, respectively. During the three and six months ended June 30, 2012 and 2011, dividends of $64,000, $173,000, $107,000 and $213,000 were paid to the holders, respectively.

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. As of June 30, 2012, Series G Preferred Stock dividends of $92,000 was accrued compared to none as of December 31, 2011. No dividend was paid to the holders during the three and six months ended June 30, 2012 and 2011.

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.

Transfer Agent

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

PLAN OF DISTRIBUTION

CRT Capital Group, LLC, which we refer to as the placement agent, has entered into a placement agency agreement with us in connection with this offering. The placement agent may engage one or more sub-placement agents or selected dealers. Among other things, the placement agent will assist us in identifying and evaluating prospective investors and approach prospective investors regarding the offering. The placement agent will assist us on a "best efforts" basis. The placement agent will have no obligation to buy any of the securities from us, nor is it required to arrange the purchase or sale of any specific number or dollar amount of securities. We will enter into subscription agreements directly with investors in connection with this offering.

The placement agency agreement provides that the obligations of the placement agent are subject to certain conditions precedent, including the absence of any material adverse change in our business and the receipt of certain certificates, opinions and letters from us, our officers, our counsel, and our independent auditors. All funds we receive from investors will be placed in a non-interest bearing escrow account with , which we refer to as the escrow agent. If the closing conditions are not satisfied by , we will return the funds to the investors, without interest and without any other offset or deduction, within two business days. This offering is being conducted in compliance with Securities and Exchange Commission Rule 15c2-4. There is no minimum offering.

There may be one or more closings of the offering. On each closing date, we will issue securities for which subscriptions have been received and accepted to the subscribers and we will receive funds in the amount of the aggregate purchase price for those securities. We currently anticipate a first closing of a sale of the securities on , 20 .

On each closing date, the following will occur:

- we will receive from escrow funds in the amount of the aggregate purchase price of the securities being sold by us on such closing date, less the amount of fees we are paying to the placement agent; and

- we will cause common stock sold on such closing date to be delivered in book-entry form through the facilities of the Depository Trust Company and issue the warrants to the subscribers.

We have agreed to pay the placement agent a cash fee equal to % of the gross proceeds of this offering, as well as "placement agent warrants" to purchase a number of shares of the our common stock equal to % of the aggregate number of shares of common stock sold in the offering. The placement agent warrants will have terms substantially similar to the terms of the warrants being offered hereby to purchasers of our common stock, and the placement agent warrants will comply with FINRA Rule 5110(g)(1) in that for a period of 180 days after the issuance date of the placement agent warrants (which shall not be earlier than the applicable closing date of this offering), neither the placement agent warrants nor any shares of our common stock issued upon exercise of the placement agent warrants shall 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 of effectiveness or commencement of sales of the offering pursuant to which the placement agent warrants are being issued, except the transfer of any security:

- by operation of law or by reason of reorganization of the Company;

- to any FINRA member firm participating in this 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 securities of the Company held by either 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. The placement agent will have piggyback registration rights with respect to the shares of common stock underlying the placement agent warrants. In addition, the placement agent warrants will have a cashless exercise right in the event that an effective registration statement is not available for the resale of the shares of common stock underlying the placement agent warrants at the time the warrant is exercised.

The following table shows the per-share and total placement agent fee to be paid by us to the placement agent. This amount is shown assuming all of the securities offered pursuant to this prospectus are sold and issued by us.

Placement Agent Fee Per Share of Common Stock	Total
$	$

We are offering pursuant to this prospectus up to shares of our common stock and warrants to purchase up to shares of our common stock, but there can be no assurance that the offering will be fully subscribed. Accordingly, we may sell substantially less than of the securities in which case our net proceeds would be substantially reduced and the total placement agent fees may be substantially less than the maximum total set forth above.

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act of 1933, as amended, and liabilities related to the performance by the placement agent of the services contemplated by the placement agency agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

The placement agency agreement will be filed as an exhibit to the registration statement of which this prospectus is a part.

The placement agent has informed us that it will not engage in over-allotment, stabilizing transactions or syndicate covering transactions in connection with this offering.

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 2012, we shares of common stock outstanding, and approximately holders of record of our common stock, and we had shares of preferred stock outstanding, and six holders of record of our preferred stock, with shares of preferred stock being convertible into 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 of our common stock, as reported by OTC QB for each quarter during fiscal years 2012, 2011 and 2010, are reported below:

	Market Price	
	High	Low
Fiscal Year 2012		
First Quarter	$0.68	$0.38
Second Quarter	$0.55	$0.21
Third Quarter (through October 18, 2012)	$0.40	$0.22
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
Fiscal Year 2010		
First Quarter	$2.74	$0.55
Second Quarter	$2.36	$1.03
Third Quarter	$1.37	$0.95
Fourth Quarter	$2.29	$1.05

Dividends

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.

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.

EXPERTS

The consolidated balance sheets of International Stem Cell Corporation and Subsidiaries as of December 31, 2011 and 2010, and the related consolidated statements of operations, stockholders' equity (deficit) and cash flows for the years then ended and for the period from inception (August 17, 2001) through December 31, 2011 have been incorporated by reference 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 by reference herein, and given upon the authority of said firms as experts in accounting and auditing.

On October 17, 2012, 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.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This prospectus does not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of that contract or other document filed as an exhibit to the registration statement. For further information about us and the securities offered by this prospectus, we refer you to the registration statement and its exhibits and schedules which may be obtained as described herein.

The SEC allows us to "incorporate by reference" the information contained in certain documents that we have filed with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. We hereby incorporate by reference the documents listed below (File No. 000-51891).

- our annual report on Form 10-K for the fiscal year ended December 31, 2011, filed on March 16, 2012;
- our quarterly reports on Form 10-Q for the quarters ended March 31, 2012 and June 30, 2012 , filed on May 14, 2012 and August 8, 2012, respectively;
- our current reports on Form 8-K filed on January 18, 2012, March 6, 2012, March 15, 2012, March 28, 2012, April 18, 2012, June 4, 2012, and August 3, 2012;
- our proxy statement on Schedule 14A, filed on April 16, 2012, for our Annual meeting of Stockholders held on May 29, 2012; and
- the description of our common stock contained in our registration statement on Forms 10-SB filed under the Securities Exchange Act on April 4, 2006, including any amendment or reports filed for the purpose of updating such descriptions.

Each person to whom a prospectus is delivered will receive a copy of all of the information that has been incorporated by reference in this prospectus but not delivered with the prospectus. You may obtain copies of these filings, at no cost, through the "Investor Relations" section of our website (www.internationalstemcell.com), and you may request copies of these filings, at no cost, by writing or telephoning us at:

International Stem Cell Corporation
Attention: Linh T. Nguyen
5950 Priestly Drive
Carlsbad, CA 92008
Telephone: (760) 940-6383

The information contained on our website is not a part of this prospectus.

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	$
Transfer agent's fees and expenses	$
Printing and engraving expenses	$
Legal fees and expenses	$
Accounting fees and expenses	$
Miscellaneous expenses	$
Total	$

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 July 1, 2009 through December 31, 2009, as part of a Series E Preferred Stock Purchase Agreement, the Company issued shares of Series E Preferred Stock and warrants to purchase a total of 4,127,084 shares of common stock (all of which warrants were exercised) to one accredited investor for an aggregate of $2,000,000.

From July 1, 2009 through December 31, 2009, the Company issued 352,564 shares of common stock to two accredited investors for an aggregate of $250,000.

From July 1, 2009 through December 31, 2009, as consideration for consulting services, the Company issued 280,000 shares of common stock to three accredited investors.

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 16, 2012, as part of the Common Stock Purchase Agreement with Aspire, the Company issued 9,833,333 shares of common stock for an aggregate of $5,942,460.

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 May 29, 2012, The Company issued 185,000 shares of common stock to Board members of the Company.

On July 24, 2012, the Company issued 150,000 shares of common stock to James Berglund, a director, as consideration for consulting services.

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

From the beginning of 2009 through , 2012 the holders of a total of 1,251,445 shares of Series B Preferred Stock and Series D 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.

(c) Issuances upon conversion or exercise of warrants.

From the beginning of 2009 through , 2012, 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 and is incorporated herein by reference.

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 October 18, 2012.

INTERNATIONAL STEM CELL CORPORATION

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

KNOW ALL PERSONS BY THESE PRESENTS, that the persons whose signature appears below constitute and appoint jointly and severally, Andrey Semechkin and Linh Nguyen, and each one of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments (including pre-effective and post-effective amendments) to this registration statement and to sign any registration statement and amendments thereto for the same offering filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all which said attorneys-in-fact and agents, or any of them, or their or his substitute or substitutes, may lawfully do, or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature:	Capacity:	Date:
/s/ Andrey Semechkin Andrey Semechkin	Chief Executive Officer and Director (Principal Executive Officer)	October 18, 2012
/s/ Linh T. Nguyen Linh T. Nguyen	Chief Financial Officer (Principal Financial and Accounting Officer)	October 18, 2012
/s/ James Berglund James Berglund	Director	October 18, 2012
/s/ Charles J. Casamento Charles J. Casamento	Director	October 18, 2012
/s/ Paul Maier Paul V. Maier	Director	October 18, 2012
/s/ Ruslan Semechkin Ruslan Semechkin	Director	October 18, 2012
/s/ Donald A. Wright Donald A. Wright	Co-Chairman and Director	October 18, 2012

EXHIBIT INDEX

Exhibit Number	Description
3.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.4 of the Registrant's Form 10-SB filed on April 4, 2006, File No. 000-51891).
3.2	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Preliminary Information Statement on Form 14C filed on December 29, 2006, File No. 000-51891).
3.3	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on June 4, 2012, File No. 000-51891).
3.4	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on May 6, 2011, File No. 000-51891).
4.1	Form of Specimen Common Stock Certificate. (incorporated by reference to Exhibit 4.1 of the Registrant's Form 10-KSB filed on April 9, 2007, File No. 000-51891).
4.2	Certificate of Elimination for Series A Preferred Stock (incorporated by reference to Exhibit 3.2 of the Registrant's Form 8-K filed on June 4, 2012, File No. 000-51891).
4.3	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).
4.4	Certification of Designation of Series C Preferred Stock (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on August 21, 2008, File No. 000-51891).
4.5	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).
4.6	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).
4.7	Warrant Certificate for warrants in connection with Series A Preferred Stock (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on January 17, 2008, File No. 000-51891).
4.8	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).
4.9	Form of Warrant for Common Stock (to be filed by amendment).
5.1	Opinion of DLA Piper LLP (US) (to be filed by amendment).
10.1	Employment Agreement, dated December 1, 2006, by and between International Stem Cell and Kenneth C. Aldrich (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.2	Employment Agreement, dated October 31, 2006, by and between International Stem Cell and Jeffrey Janus (incorporated by reference to Exhibit 10.4 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.3	First Amendment to Exclusive License Agreement (ACT IP), dated as of August 1, 2005, by and between Advanced Cell, Inc. and LCT (incorporated by reference to Exhibit 10.9 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.4	First Amendment to Exclusive License Agreement (UMass IP), dated as of August 1, 2005, by and between Advanced Cell, Inc. and LCT (incorporated by reference to Exhibit 10.10 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).

Exhibit Number	Description
10.5	First Amendment to Exclusive License Agreement (Infigen IP), dated as of August 1, 2005, by and between Advanced Cell, Inc. and LCT (incorporated by reference to Exhibit 10.11 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.6	Exclusive License Agreement (Infigen IP), dated as of May 14, 2004, by and between Advanced Cell Technology, Inc and PacGen Cellco, LLC (predecessor company of LCT) (incorporated by reference to Exhibit 10.12 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.7	Exclusive License Agreement (ACT IP), dated as of May 14, 2004, by and between Advanced Cell Technology, Inc. and PacGen Cellco, LLC (predecessor company of LCT) (incorporated by reference to Exhibit 10.13 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
10.8	Exclusive License Agreement (UMass IP), dated as of May 14, 2004, by and between Advanced Cell Technology, Inc. and PacGen Cellco, LLC (predecessor company of LCT) (incorporated by reference to Exhibit 10.14 of the Registrant's Form 8-K filed on December 29, 2006, File No. 000-51891).
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).
10.10	Common Stock Purchase Warrant issued with OID Senior Convertible Note (incorporated by reference to Exhibit 10.3 of the Registrant's Form 8-K filed on May 16, 2008, File No. 000-51891).
10.11	Multiple Advance Convertible Note (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on August 18, 2008, 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).
10.15	Preferred Stock Purchase Agreement dated June 30, 2009 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on July 6, 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).
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).
10.20	Preferred Stock Purchase Agreement dated May 4, 2010 (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed May 5, 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).

Exhibit Number	Description
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).
10.24	Exchange Agreement with Socius CG II, Ltd. dated June 11, 2010 (incorporated by reference to Exhibit 10.4 of the Registrant's Form 10-Q filed on August 6, 2010, File No. 000-51891).
10.25	Exchange Agreement with Optimus Capital Partners, LLC dated June 11, 2010 (incorporated by reference to Exhibit 10.5 of the Registrant's Form 10-Q filed on August 6, 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	Placement Agency Agreement with CRT Capital Group, LLC (to be filed by amendment).
10.29	Dividend Waiver Agreement dated October 12, 2012.
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 Hoffmann 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 (included on the signature page to the registration statement).

Exhibit 10.29

WAIVER AGREEMENT

This Waiver Agreement (the "Agreement") is entered into as of October 12, 2012, by and between International Stem Cell Corporation, a Delaware corporation (the "Company"), and Andrey Semechkin, an individual, Ruslan Semechkin, an individual, X-Master, Inc., a New Hampshire corporation, and AR Partners, LLC, a Delaware limited liability company (collectively, the "Holders") with respect to the following:

A. The Holders are the registered holders and the beneficial owners of all of the issued and outstanding shares of the Company's Series D Preferred Stock, $0.001 par value per share (the "Series D Preferred") and all of the issued and outstanding shares of the Company's Series G Preferred Stock $0.001 par value per share (the "Series G Preferred").

B. Pursuant to the terms of the Certificate of Designation of Rights, Preferences, Privileges and Restrictions of the Series D Preferred Stock (the "Series D Certificate of Designation"), the Series D Preferred is currently entitled to annual dividends per share equal to 6% of the original purchase price of the Series D Preferred, with such dividends accruing, whether or not declared, and accumulating. Additionally, interest at the rate of 1.5 % per month is payable on the amount of any Series D Preferred dividends which are not paid by the date specified in the Series D Certificate of Designation.

C. Pursuant to the terms of the Certificate of Designation of Rights, Preferences, Privileges and Restrictions of the Series G Preferred Stock (the "Series G Certificate of Designation"), the Series G Preferred is entitled to cumulative annual dividends per share equal to 6% of the original purchase price of Series G Preferred, with such dividends accruing and being payable upon the occurrence of a Liquidation Event or Deemed Liquidation Event (both as defined in the Series G Certificate of Designation).

D. Andrey Semechkin and Ruslan Semechkin are each directors and officers of the Company and, assuming full conversion and exercise of all derivative securities held, the Holders would beneficially own over 30% of the outstanding shares of common stock of the Company.

E. In connection with the Company seeking to raise additional capital to support its operations and continued development, which is a significant benefit to Holders, the Holders have agreed to waive all current and future rights they may have to all Series D Preferred dividends, any interest that may be payable on unpaid Series D Preferred dividends, and all Series G Preferred dividends.

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

1. Waiver of Dividends and Interest Payments.

a. The Holders hereby irrevocably and unconditionally waive all rights they hold to receive (i) Accruing Series D Dividends (as defined in the Series D Certificate of Designation), (ii) Accruing Series G Dividends (as defined in the Series G Certificate of Designation) and (iii) any interest and any other rights accruing to them by reason of the failure of the Company to pay such dividends pursuant to the terms of the Series D Certificate of Designation, the Series G Certificate of Designation or any other agreement between the Company and any of the Holders with respect to the payment of the Accruing Series D Dividends or the Accruing Series G Dividends. This waiver applies to all such dividends, interest and other rights linked to the payment of dividends that would accrue or be paid on or after September 30, 2012, together with any such dividends, interest, or rights linked to the payment of dividends that have accrued but have not been paid as of that date. The parties understand and acknowledge that the waiver in this Section 1 (a) does not apply to any dividend or interest payments that were actually paid to any Holder prior to September 30, 2012.

b. Except as specifically provided herein, this Waiver Agreement does not, and is not intended to, effect the waiver of any other rights held by the Holders under the Series D Certificate of Designation or Series G Certificate of Designation. In amplification of the foregoing, the parties understand and acknowledge that the provisions in the Series D Certificate of Designation and the Series G Certification of Designation requiring payments of dividends to the holders of Series D Preferred and Series G Preferred in the event of payment of dividends on other series of capital stock shall continue in full force and effect.

2. Certificates and Transfers.

It is the intention of the Holders and the Company that the waivers set forth in Section 1 above shall be binding on the Holders and on any transferees of any shares of Series D Preferred or Series G Preferred. Therefore, the Holders agree to surrender all certificates representing shares of Series D Preferred and Series G Preferred to the Company for addition of a legend noting the waiver of dividend rights pursuant to this Agreement. Additionally, the Holders agree that the shares of Series D Preferred Stock and Series G Preferred Stock that they hold may not be transferred, including by operation of law, unless the transferee agrees in writing to be bound by the terms of this Agreement. Any purported transfer of shares of Series D Preferred Stock or Series G Preferred Stock in contravention of the foregoing sentence shall be null and void.

3. Representations of the Parties.

Each party hereby represents and warrants to the others that:

a. the execution and delivery and performance by such party of this Agreement: (i) is within such party's power, (ii) has been duly authorized by all necessary action of such party, (iii) is not in contravention of such party's organizational documents (as applicable), (iv) does not violate any law or regulation, or any order or decree of any governmental authority applicable to such party, and (v) does not conflict with, or result in the breach or termination, constitute or default under or accelerate any performance required by, any agreement to which such party is bound.

b. This Agreement has been duly executed and delivered by or on behalf of such party and constitutes a legal, valid and binding obligation of such party, enforceable against such party in accordance with its terms except as the enforceability may be limited by bankruptcy, insolvency, organization, moratorium and other laws affecting creditors' rights and remedies in general.

4. Representations of the Holders.

a. Each Holder is the sole legal and beneficial owner of the shares of Series D Preferred Stock and Series G Preferred Stock held by such Holder. Each Holder has good, valid and marketable title to the shares of Series D Preferred Stock and Series G Preferred Stock held by such Holder, free and clear of any liens, pledges, charges, security interests, encumbrances or other adverse claims. Each Holder has not, in whole or in part, (i) assigned, transferred, hypothecated, pledged, exchanged or otherwise disposed of any of the shares of Series D Preferred Stock or Series G Preferred Stock, or (ii) given any person or entity any transfer order, power of attorney or other authority of any nature whatsoever with respect to the shares of Series D Preferred Stock or Series G Preferred Stock.

5. Miscellaneous.

a. This Agreement may be executed in any number of counterparts, with all such counterparts constituting one agreement, binding on all of the parties hereto.

b. This Agreement shall be governed by and construed exclusively in accordance with the internal laws of the state of Delaware, without regard to the conflicts of laws principles thereof. The parties hereby irrevocably agree that any suit or proceeding arising directly and/or indirectly pursuant to or under this Agreement shall be brought solely in a federal or state court located in the state of Delaware. By execution hereof, the parties hereby covenant and irrevocably submit to the jurisdiction of the federal and state courts located in the state of Delaware and agree that any process in any such action may be served upon any of them personally, or by certified mail or registered mail addressed to them or their agent, returned receipt requested, with the same force and effect as personally served upon them in the state of Delaware. The parties hereto expressly and irrevocably waive any claim that any such jurisdiction is not a convenient forum for any such suit or proceeding and any defense or lack of jurisdiction with respect thereto. In the event of any such action or proceeding, the party

prevailing therein shall be entitled to payment from the other party to such action of its reasonably attorney's fees and disbursements.

c. Each party agrees that it shall do and preform or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificate, instruments, waivers and documents, as the other parties many reasonably request in order to carry out the intent and accomplish the purposes of this Agreement.

d. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon their respective successors and assigns, including any transferees of the Series D Preferred or Series G Preferred.

e. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon delivery, when delivered personally or by overnight courier or sent by facsimile (upon customary confirmation of receipt), addressed to the party to be notified at such party's address as set forth on the signature page hereto, or as subsequently modified by written notice from such party.

f. Prior to executing this Agreement, the Company and each of the Holders have had the benefit of the advice and counsel of their own independent attorneys in understanding and negotiating the terms of this Agreement.

g. This Agreement and the documents referred to herein, constitute the entire agreement between the parties pertaining to the subject matter hereof.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed and delivered as of the date in and set forth above.

International Stem Cell Corporation
5950 Priestly Drive
Carlsbad, CA 92008

Facsimile: _____

By: /s/ LINH NGUYEN

Name, Title: LINH NGUYEN, CFO

/s/ Andrey Semechkin
Andrey Semechkin
5950 Priestly Drive

Carlsbad, CA 92008

Facsimile: (603)625-5650

/s/ Ruslan Semechkin

Ruslan Semechkin

5950 Priestly Drive

Carlsbad, CA 92008

Facsimile: (603)625-5650

X-Master, Inc.

1 Overlook Dr., Ste # 11

Amherst, NH 03031

Facsimile: (603)625-5650

By: /s/ Ruslan Semechkin

Name, Title: Ruslan Semechkin, President

AR Partners, LLC

5950 Priestly Drive

Carlsbad, CA 92008

Facsimile: (603)625-5650

By: /s/ Ruslan Semechkin

Name, Title: Ruslan Semechkin, Managing Member

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated March 16, 2012 (which report includes an explanatory paragraph relating to the uncertainty of the Company's ability to continue as a going concern) included in the Form 10-K for the year ended December 31, 2011 of **International Stem Cell Corporation and Subsidiaries** (the Company), a development stage company, and to all references to our Firm included in this Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California
October 18, 2012

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 incorporation by reference in the Prospectus constituting a part of this Registration Statement 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-2 in the Company's Annual Report on Form 10-K for the year ended December 31, 2010.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

Los Angeles, California
October 17, 2012