

**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**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code number)  
**2595 Jason Court**  
**Oceanside, CA 92056**  
**(760) 940-6383**  
(Address and telephone number of principal executive offices)

**20-4494098**  
(I.R.S. Employer  
Identification No.)

**RAY WOOD**  
**2595 Jason Court**  
**Oceanside, CA 92056**  
**(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 practicable 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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>

**CALCULATION OF REGISTRATION FEE**

Title of each class of securities to be registered	Proposed maximum aggregate offering price	Amount of registration fee (1)
Common Stock	—	—
Warrants to purchase Common Stock	—	—
Common Stock issuable upon exercise of Warrants (2)	—	—
Total Registration Fee	\$15,000,000	\$1,070.00

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

(2) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issuable upon exercise of warrants registered hereunder as a result of stock splits, stock dividends, or similar transactions.

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 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 we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JANUARY 27, 2010

# International Stem Cell Corporation

Units, each consisting of  
Share(s) of Common Stock and  
warrants to purchase share(s) of common stock

We are offering up to units, each consisting of share(s) of our common stock and warrant(s) to purchase share(s) of our common stock at an exercise price of \$ per share, subject to adjustment. The warrants will be exercisable on or after the applicable closing date of this offering through and including close of business on , 20 . The units will not be certificated and the common stock and warrants will be immediately separable and will be separately transferable immediately upon issuance.

There may be one or more closings of the offering. Upon a closing of the offering, all common stock and warrants sold as units will separate and the common stock and the warrants will be separately transferable.

Our common stock is quoted on the OTC Bulletin Board and trades under the symbol “ISCO.OB”. The last reported sale price of our common stock on the OTC Bulletin Board on January 25, 2010, was \$0.87 per share.

Investing in the offered securities involves substantial risks. See “Risk Factors,” beginning on page 4.

	Per Unit	Total
Offering Price per Unit	\$	\$
Placement Agent’s Fees	\$	\$
Offering Proceeds before expenses	\$	\$

has agreed to act as our placement agent in connection with this offering. In addition, may engage one or more sub-placement agents or selected dealers. The placement agent is not purchasing the securities offered by us, and is not required to sell any specific number or dollar amount of units, 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 units 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 units sold in the offering. The placement agent warrants will have terms substantially similar to the warrants included in units offered hereby, except that the placement agent warrants will have a term of five years from the effective date of the registration statement of which this prospectus is a part and will otherwise comply with NASD 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 in this offering, the actual public offering amount, placement agent fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. See “Plan of Distribution” beginning on page 16 of this prospectus for more information on this offering and the placement agent arrangements.

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. In either event, the offering may be closed without further notice to you.

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.

The date of this prospectus is January , 2010.

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INTERNATIONAL STEM CELL CORPORATION HAS NOT REGISTERED THE SHARES FOR SALE UNDER THE SECURITIES LAWS OF ANY STATE. BROKERS OR DEALERS EFFECTING TRANSACTIONS IN THE SHARES SHOULD CONFIRM THAT THE SHARES HAVE BEEN REGISTERED UNDER THE SECURITIES LAWS OF THE STATE OR STATES IN WHICH SALES OF THE SHARES 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. THIS PROSPECTUS IS NOT AN OFFER TO SELL SECURITIES IN ANY CIRCUMSTANCES IN WHICH SUCH AN OFFER IS UNLAWFUL.

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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.”

You may only rely 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 biotechnology company currently focused on developing therapeutic products and research products. In the area of therapeutic product development, our objective is to create an unlimited source of human cells for use in the treatment of several diseases including diabetes, liver disease, corneal disease and retinal disease through cell transplant therapy. In furtherance of this objective, we are currently developing (i) pluripotent stem cells that are comparable in function to, but distinct in derivation from, embryonic stem cells from which cells for human transplant can be derived, (ii) techniques to cause those cells to be differentiated into the specific cell types required for transplant, and (iii) manufacturing protocols to produce these cells without contamination with animal by-products in compliance with U.S. Food and Drug Administration requirements. While our cell lines are comparable to embryonic cell lines because they have the potential to become any cell in the human body through differentiation, the development of our cell lines does not require the use of fertilized eggs or the destruction of any embryos created through fertilization.

According to the National Institutes of Health, research on stem cells is advancing knowledge about how an organism develops from a single cell and how healthy cells replace damaged cells in adult organisms. This area of science is also leading scientists to investigate the possibility of cell-based therapies to treat disease, which is often referred to as regenerative or reparative medicine. A potential application of human stem cells is the generation of cells and tissues that may be used for cell-based therapies. Today, donated organs and tissues are often used to replace ailing or destroyed tissue, but the need for transplantable tissues and organs far outweighs the available supply. Stem cells, directed to differentiate into specific cell types, offer the possibility of a renewable source of replacement cells and tissues to treat diseases including diabetes, liver disease, corneal disease and retinal disease.

Pluripotent stem cells are undifferentiated primary cells that have the potential to become any tissues or organs of the body. However, stem cell therapies have technical, ethical and legal hurdles to overcome before they will be able to be used to effect tissue and organ repair. To realize the promise of cell-based therapies for the treatment of diseases, scientists must be able to manipulate stem cells so that they possess the necessary characteristics for successful differentiation, transplantation and engraftment. The following is a list of some of the major steps in successful cell-based treatments that scientists will have to learn to precisely control to ready such treatments for clinical use. To be useful for transplant purposes, stem cells must be reproducibly made to:

- proliferate extensively and generate sufficient quantities of stem cells;
- differentiate into the desired cell type(s) and generate sufficient quantities of those cell types;
- survive in the recipient after transplant;
- integrate into the surrounding tissue after transplant;

- function appropriately;
- avoid harming the recipient; and
- avoid or reduce the problem of immune rejection.

We believe that the market for our products will be substantial given the current limited supply of human cells required to make transplants possible, the need for cells that will not be rejected, and the need for cells produced without contamination by animal by-products. Addressing these core issues will provide an excellent opportunity for the commercialization of our products.

During 2007 and 2008, we had two peer review papers published describing our procedures for creating pluripotent stem cells through parthenogenesis.

In addition to the work we are doing to develop cells for therapeutic cell transplant, we are engaged in the development, production and sale of specialty research products (specialized cell systems, media and reagents for use in stem cell and other medical research) which we have commercialized and are selling to academic institutions, government entities, and commercial research companies. This portion of our business is focused on the needs of stem cell researchers for specialized cells, media and reagents used in the development of therapeutic products. The sale of these research products is expected to provide us with revenue to support a portion of the development of therapeutic products.

Our principal executive offices are located at 2595 Jason Court, Oceanside, California 92056, and our telephone number is (760) 940-6383.

### **The Offering**

Securities Offered:	Up to        units. Each unit will consist of        share(s) of our common stock and warrant(s) to purchase        share(s) of our common stock.
Offering Price:	\$        per unit.
Description of Warrants:	The warrants will be exercisable on or after the applicable closing date of this offering through and including close of business on        , 20        at an exercise price of \$        per share.
Common Stock Outstanding Before the Offering:	shares (1)
Common Stock Outstanding After the Offering:	shares, which does not include        shares of common stock issuable upon exercise of the warrants included in the offered units or the shares of common stock issuable upon the exercise of the placement agent warrants.
Use of Proceeds:	We expect to use the proceeds received from the offering to fund our research and development activities, including        , and for general working capital needs.
Risk Factors:	See “Risk Factors” beginning on page        and the other information in this prospectus for a discussion of the factors you should consider before you decide to invest in the units.

- (1) The total number of shares of our common stock outstanding as of December 31, 2009 is 56,034,835, and excludes:
- 2,000,000 shares of common stock reserved for issuance upon exercise of warrants that would be exercisable in the event we elect to sell Optimus Capital additional shares of Series E Preferred Stock;
  - 19,211,630 shares of common stock issuable upon exercise of outstanding stock options at a weighted average exercise price of \$0.72 per share;
  - 8,516,650 additional shares of common stock reserved for issuance under various outstanding warrant agreements, at an exercise price of \$0.25 per share;
  - 29,280,000 additional shares of common stock reserved for issuance upon conversion of our outstanding shares of Series A, Series B, Series C and Series D Preferred Stock; and
  - 6,045,963 additional shares of common stock reserved for future issuance under our stock plan.

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 or that we may issue pursuant to our arrangement with Optimus Capital.

## 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.” The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently believe are immaterial may also impair our business operations. 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 Relating 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 and do not expect to be profitable in the near future.

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 revenues and may not have any in the foreseeable future. We will need additional capital to conduct our operations and develop our products and our ability to obtain the necessary funding is uncertain. We need to obtain significant additional capital resources from sources including equity and/or debt financings, license arrangements, grants and/or collaborative research arrangements in order to develop products. Our current burn rate is approximately \$450,000 per month excluding capital expenditures and the company has been funding this through private equity financings, as required. We believe that more formal financing in an amount sufficient to fund operations for a year or more will be required and we intend to seek such financing when the capital markets permit. However, if such financing is not available or available only on terms that are detrimental to the long-term survival of the company, 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 2009 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.

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

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.

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 also 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 delayed by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- lack of 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 obtained 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, there can be no assurance that we would 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.



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### ***We may not be able to adequately protect against piracy of intellectual property in foreign jurisdictions.***

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 competition includes fully integrated biotechnology and pharmaceutical 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 pharmaceutical companies and more established biotechnology and stem cell companies. These companies are developing stem cell-based products and they have significantly greater capital resources in research and development, manufacturing, testing, obtaining regulatory approvals, 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 adversely affected.

### ***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 nuclear transfer and 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.***

Our business is 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 stem cells derived from unfertilized oocytes, certain aspects of that work may involve the use of nuclear transfer technology or material deemed to be embryonic material. Nuclear transfer technology, commonly known as therapeutic cloning, and research utilizing embryonic stem cells is controversial, and currently subject to intense scrutiny, particularly in the area of nuclear transfer of human cells and the use of human embryonic material. Cloning for research purposes is unlawful in many states and this type of prohibition may expand into other states, including some where we now operate.

Federal law no longer restricts the use of federal funds for human embryonic cell research, commonly referred to as hES cell research, however, research using parthenogenic stem cells or cells derived from somatic cell nuclear

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transfer are not currently eligible for Federal funding and there can be no assurance that our operations will not be restricted by any future legislative or administrative efforts by politicians or groups opposed to the development of hES cell technology, parthenogenesis or nuclear transfer technology. Further, there can be no assurance that legislative or administrative restrictions directly or indirectly delaying, limiting or preventing the use of hES technology, parthenogenesis or nuclear transfer technology, the use of human embryonic material, or the sale, manufacture or use of products or services derived from parthenogenesis, nuclear transfer technology or other hES technology will not be adopted in the future.

***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 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 have been or are being funded in part by government grants and our research may be so funded in the future. In connection with certain grants, the governmental entity involved retains 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 it the right to practice the invention without payment of royalties.

***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 our primary sources 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 will 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

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clinical trials of our products, or those of our licensees or collaborators, must demonstrate the safety and efficacy of such products to the extent necessary to obtain appropriate regulatory approvals. Similarly, the testing of such 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 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 be successful in these efforts.

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.

***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 or to timely achieve development and commercialization benchmarks). 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.

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### ***Patents pending may not be granted.***

Our business is based in large part on technology which we have developed and on which we have filed domestic and international patent applications. However, although we have researched prior art in the fields covered by our patents and believe that they will ultimately be granted, some or all of such patent applications may not be granted. We may not have the resources to defend them in the event of infringement.

### ***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. 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

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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;

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- 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 scientists, particularly, Mr. Aldrich, Dr. Semechkine, Mr. Janus or Dr. Revazova, would be significantly detrimental to us. In addition, recruiting and retaining qualified scientific personnel to perform research and development work is critical to our success. Our anticipated growth and expansion into areas and activities requiring additional expertise, such as clinical testing, regulatory compliance, manufacturing and marketing, will require the addition of new management personnel and the development of additional expertise by existing management personnel. There is intense competition for qualified personnel in the areas of our present and planned activities, and we may not be able to continue to attract and retain the qualified personnel necessary for the development of our business. The failure to attract and retain such personnel or to develop such expertise would adversely affect 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;

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- disputes concerning patents or proprietary rights;
- changes in our revenues or expense levels;
- public concern regarding the safety, efficacy or other aspects of

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.

***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 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 has been 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;

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- 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 volume 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, almost all of our securities are either free trading or subject to the release of trading restrictions under the six month or one year holding periods of Rule 144.

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

Our Certificate of Incorporation authorizes the Board of Directors to issue up to 20,000,000 shares of preferred stock and our Board of Directors has created and issued shares of five series of preferred stock. The preferred stock may be issued in one or more series, the terms of which may be determined at the time of issuance by the Board of Directors without further action by the stockholders. These terms may 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. The issuance of any preferred stock could diminish the rights of holders of our common stock, and therefore could reduce the value of such common stock. In addition, specific rights granted to future holders of preferred stock could be used to restrict our ability to merge with, or sell assets to, a third party. The ability of the Board of Directors to issue preferred stock 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.

### ***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.



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

Rules adopted by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 require us to perform an annual assessment of our internal controls over financial reporting and certify the effectiveness of those controls. The standards that must be met for management to assess the internal controls over financial reporting as now in effect are complex, 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. In addition, the attestation process is new for us and we may encounter problems or delays in completing the implementation of any requested improvements and receiving an attestation of the assessment by our independent registered public accountants. If we cannot perform the assessment or certify that our internal controls over financial reporting are effective, or our independent registered public accountants are unable to provide an unqualified attestation on such assessment, investor confidence and share value may be negatively impacted.

***We do not expect to pay cash dividends in the foreseeable future.*** We have not 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 \_\_\_\_\_ units offered in this offering at a public offering price of \$ \_\_\_\_\_ per unit, 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, assuming no exercise of the warrants. In addition, in the past, we issued options and warrants to acquire shares of common stock. To the extent these options 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 agents in this offering will offer the units 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 units are sold. Further, during 2009, we used a significant amount of cash to finance the continued

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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 5 of this Prospectus.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of units in this offering, assuming gross proceeds of \$ million (which is the amount of gross proceeds received if the offering is fully subscribed), will be approximately \$ million, after deducting the placement agent fees and estimated expenses of this offering. In addition, if all of the warrants included in the units offered pursuant to this prospectus are exercised in full for cash, we will receive approximately an additional \$ million in cash. We may not be successful in selling any or all of the securities offered hereby. Because there is no minimum offering amount required as a condition to closing in this offering, we may sell less than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us.

We expect to use any proceeds received from the offering:

- to fund our research and development activities, including research involving the derivation and differentiation of parthenogenetic stem cells and development of commercial research products; and
- 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 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 will have significant discretion in the use of any net proceeds. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of the securities.

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 development and differentiation of parthenogenetic stem cells	\$
Development of commercial research products	\$
Other research and development programs	\$
General working capital purposes	\$
Maximum net proceeds of the offering	\$

We may invest the net proceeds received from this offering temporarily until we use them for their stated purpose.

DILUTION

Our reported net tangible book value as of September 30, 2009 was \$(2,313,553), or \$(0.05) per share of common stock, based upon 49,031,717 shares outstanding as of that date. Net tangible book value per share is determined by dividing such number of outstanding shares of common stock into our net tangible book value, which is our total tangible assets less total liabilities. After giving effect to the sale of the units offered in this offering at the offering price of \$ per unit, at September 30, 2009, after deducting placement agent fees and other estimated offering expenses payable by us, our net tangible book value at September 30, 2009 would have been approximately , or \$ per share. This represents an immediate increase in net tangible book value of approximately \$ per share to our existing stockholders, and an immediate dilution of \$ per share to investors purchasing units in the offering.

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The following table illustrates the per share dilution to investors purchasing units in the offering:

Public offering price per unit	\$
Net tangible book value per share as of September 30, 2009	\$
Increase per share attributable to sale of units to investors	\$
As adjusted net tangible book value per share after the offering	\$
Dilution per share to investors	\$
Dilution as a percentage of the offering price	%

The foregoing illustration does not reflect potential dilution from the exercise of outstanding options or warrants to purchase shares of our common stock, or from exercises of warrants that may be issued in the future in connection with sales of our Series E Preferred Stock to Optimus Capital.

## DESCRIPTION OF SECURITIES

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 220,000,000 shares of capital stock, \$0.001 par value per share, of which 200,000,000 shares are designated common stock and 20,000,000 shares are designated 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 be Issued as Part of this Offering

The Warrants offered in 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.

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Each Warrant represents the right to purchase \_\_\_\_\_ share(s) 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 \_\_\_\_\_. 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.

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, 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 E 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.

### **PLAN OF DISTRIBUTION**

\_\_\_\_\_, 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 units from us, nor is it required to arrange the purchase or sale of any specific number or dollar amount of units. 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. If the

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closing conditions are not satisfied by \_\_\_\_\_, 2010, we will return your subscription amount to you without interest and without any other offset or deduction within two days.

There may be one or more closings of the offering. On each closing date, we will issue the 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 \_\_\_\_\_, 2010.

On each closing date, the following will occur:

- we will receive 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;
- 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 included in units sold in the offering. The placement agent warrants will have terms substantially similar to the terms of the warrants included in the units offered hereby, and the placement agent warrants will comply with NASD 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-unit and total placement agent fee to be paid by us to the placement agent. This amount is shown assuming all of the units offered pursuant to this prospectus are sold and issued by us.

<u>Placement Agent Fee Per Unit</u>	<u>Total</u>
\$	\$

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We are offering pursuant to this prospectus up to \_\_\_\_\_ of our units, but there can be no assurance that the offering will be fully subscribed. Accordingly, we may sell substantially less than \_\_\_\_\_ of our units, 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.

## **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 financial statements and schedule of International Stem Cell Corporation as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive loss and cash flows for the years then ended and for the period from inception (August 17, 2001) through December 31, 2008 have been incorporated by reference herein and in the registration statement in reliance upon the report of Vasquez & Company LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

## **WHERE YOU CAN FIND MORE INFORMATION**

We file reports, proxy statements and other information with the SEC. Copies of our reports, proxy statements and other information may be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials can also be obtained by mail at prescribed rates from the Public Reference Room of the SEC, 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding International Stem Cell Corporation and other issuers that file electronically with the SEC. The address of the SEC internet site is [www.sec.gov](http://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](http://www.internationalstemcell.com).

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This prospectus is part of a registration statement on Form S-1 filed by us with the SEC. 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. 0-51891).

- our annual report on Form 10-K for the fiscal year ended December 31, 2008;
- our quarterly reports on Form 10-Q for the quarters ended March 31, 2009, June 30, 2009 and September 30, 2009;
- our current reports on Form 8-K filed on January 5, 2009, February 6, 2009, March 18, 2009, July 6, 2009, July 6, 2009 (as amended on August 20, 2009), October 19, 2009 and November 10, 2009;
- our proxy statement on Schedule 14A filed with the SEC on March 30, 2009; 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](http://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: Lisa Bzenich  
2595 Jason Court  
Oceanside, CA 92056  
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	\$1,070
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 its 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.

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May 2008, we issued a \$1 million convertible note and a warrant to purchase 2,000,000 shares of common stock to an accredited investor. From February through May 2009, we issued a total of 5,025,531 shares of common stock upon conversion of a portion of the note and conversion of the warrant. The issuances upon conversion of these securities were exempt under Section 3(a)(9) of the Securities Act.

From April 2009 through June 2009, we issued a total of 1,170,329 shares of common stock to five accredited investors.

From January 1, 2008 to January 14, 2008, the Company issued to certain accredited investors 1,000,000 shares of Series A Preferred Stock, for an aggregate of \$1,000,000. In addition there were warrants issued for 2,000,000 shares of common stock at an exercise price of \$0.25.

From February 15, 2008 to March 24, 2008, the Company issued to certain accredited investors 550,000 shares of Series B Preferred Stock, for an aggregate of \$550,000. In addition there were warrants issued for 1,100,000 shares of common stock at an exercise price of \$0.25.

From August 25, 2008 to September 19, 2008, the Company issued to certain accredited investors 2,000,000 shares of Series C Preferred Stock, for an aggregate of \$2,000,000.

From December 29, 2008 to June 30, 2009, the Company issued to certain accredited investors 40 shares of Series D Preferred Stock, for an aggregate of \$4,000,000.

On April 17, 2007, as consideration for its services as consultant, the Company issued 1,000,000 shares of the Company's common stock to Capital Group Communications, Inc. for services rendered from September 1, 2006 to August 31, 2007.

On August 6, 2007, as consideration for its services as consultant, the Company issued 350,000 shares of the Company's common stock to Corporate Capital Advisors, Inc. 315,000 shares and to Richardson and Patel, LLP, 35,000 shares for services rendered in connection with the reverse merger.

On March 24, 2008, as consideration for its services as consultant, the Company issued 20,000 shares of the Company's common stock to Ibis Consulting Group LLC. for services rendered.

On May 13, 2008, as consideration for its services as consultant, the Company issued 250,000 shares of the Company's common stock to Media Capital Partners.

On July 2, 2008, as consideration for its services as consultant, the Company issued 100,000 shares of the Company's common stock to InCap Group, Inc.

In December 2008, we issued 2,121,800 shares to seven persons who were directors, executive officers or members of senior management in recognition of the fact that these individuals had previously agreed to waive some or all of the cash compensation otherwise payable to them.

On February 16, 2009, as consideration for its services as consultant, the Company issued 20,000 shares of the Company's common stock to PSEO – Pam Saunders.

On July 7, 2009, as part of the Series E Preferred Stock Purchase Agreement, the Company issued 290,689 shares of common stock and a warrant to Optimus Capital Partners.

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) 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 persons for an aggregate of \$250,000.

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

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

During 2009, the holders of a total of 750,004 shares of Series A Preferred Stock, Series B Preferred Stock and Series D Preferred Stock converted their shares to a total of 4,526,800 shares of common stock. These issuances were exempt pursuant to Section 3(a)(9) of the Securities Act.

**(c) Issuance of stock for assets.**

In July 2009, we issued a total of 400,000 shares of common stock to 3 accredited investors in return for patent and other intellectual property rights. This transaction was exempt from registration under Section 4(2) of the Securities Act as a transaction not involving a public offering.

**(d) Issuances upon conversion or exercise of warrants.**

From April 2009 through December 2009, we issued a total of 4,860,611 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

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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.

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**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 Oceanside, California on January 27, 2010.

INTERNATIONAL STEM CELL CORPORATION

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

**POWER OF ATTORNEY**

Each person whose signature appears below hereby constitutes and appoints Andrey Semechkin and Ray Wood, and each of them singly, his attorneys-in-fact and agents with full power of substitution, for him, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-1, as well as new registration statements pursuant to Rule 462, 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 full power and authority to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their 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.

<u>Signature:</u>	<u>Capacity:</u>	<u>Date:</u>
<u>/s/ Andrey Semechkin</u> Andrey Semechkin	Chief Executive Officer and Director (Principal Executive Officer)	January 27, 2010
<u>/s/ Ray Wood</u> Ray Wood	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	January 27, 2010
<u>/s/ Kenneth C. Aldrich</u> Kenneth C. Aldrich	Chairman of the Board	January 27, 2010
<u>/s/ Jeffrey D. Janus</u> Jeffrey D. Janus	Senior Vice President, Operations and Director	January 27, 2010
<u>/s/ Paul V. Maier</u> Paul V. Maier	Director	January 27, 2010
<u>/s/ Ruslan Semechkine</u> Ruslan Semechkine	Director	January 27, 2010
<u>/s/ Donald A. Wright</u> Donald A. Wright	Director	January 27, 2010

**EXHIBIT INDEX**

<b><u>Exhibit Number</u></b>	<b><u>Description</u></b>
3.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.4 of the issuer's Form 10-SB filed on April 4, 2006).
3.2	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Issuer's Preliminary Information Statement on Form 14C filed on December 29, 2006).
3.3	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.2 of the Issuer's Preliminary Information Statement on Form 14C filed on December 29, 2006).
4.1	Form of Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the Issuer's Form 10-KSB for the year ended December 31, 2006).
4.2	Certification of Designation of Series A Preferred Stock (incorporated by reference to Exhibit 4.1 of the Issuer's Form 8-K filed on January 17, 2008).
4.3	Certification of Designation of Series B Preferred Stock (incorporated by reference to Exhibit 4.1 of the Issuer's Form 8-K filed on May 12, 2008).
4.4	Certification of Designation of Series C Preferred Stock (incorporated by reference to Exhibit 10.2 of the Issuer's Form 8-K filed on August 21, 2008).
4.5	Certification of Designation of Series D Preferred Stock (incorporated by reference to Exhibit 10.2 of the Issuer's Form 8-K filed on January 5, 2009).
4.6	Certification of Designation of Series E Preferred Stock (incorporated by reference to Exhibit 10.2 of the Issuer's Form 8-K filed on July 6, 2009).
4.7	Warrant Certificate for warrants in connection with Series A Preferred Stock (incorporated by reference to Exhibit 10.2 of the Issuer's Form 8-K filed on January 17, 2008).
4.8	Warrant Certificate for warrants in connection with Series B Preferred Stock (incorporated by reference to Exhibit 10.2 of the Issuer's Form 8-K filed on May 12, 2008).
5.1	Opinion of DLA Piper LLP (US).*
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).
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).
10.3	First Amendment to Exclusive License Agreement (ACT IP), dated as of August 1, 2005, by and between Advanced Cell, Inc. and Lifeline (incorporated by reference to Exhibit 10.9 of the Registrant's Form 8-K filed on December 29, 2006).
10.4	First Amendment to Exclusive License Agreement (UMass IP) dated as of August 1, 2005, by and between Advanced Cell, Inc. and Lifeline (incorporated by reference to Exhibit 10.10 of the Registrant's Form 8-K filed on December 29, 2006).
10.5	First Amendment to Exclusive License Agreement (Infigen IP) dated as of August 1, 2005, by and between Advanced Cell, Inc. and Lifeline (incorporated by reference to Exhibit 10.11 of the Registrant's Form 8-K filed on December 29, 2006).
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 Lifeline) (incorporated by reference to Exhibit 10.12 of the Registrant's Form 8-K filed on December 29, 2006).

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<u>Exhibit Number</u>	<u>Description</u>
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 Lifeline) (incorporated by reference to Exhibit 10.13 of the Registrant's Form 8-K filed on December 29, 2006).
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 Lifeline) (incorporated by reference to Exhibit 10.14 of the Registrant's Form 8-K filed on December 29, 2006).
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).
10.10	Securities Purchase Agreement of May 14, 2008 for sale of OID Senior Secured Convertible Note and Warrants (incorporated by reference to Exhibit 10.1 of the Issuers Form 8-K filed on May 16, 2008).
10.11	OID Senior Secured Convertible note (incorporated by reference to Exhibit 10.2 of the Issuers Form 8-K filed on May 16, 2008).
10.12	Common Stock Purchase Warrant issued with OID Senior Convertible Note (incorporated by reference to Exhibit 10.3 of the Issuers Form 8-K filed on May 16, 2008).
10.13	Multiple Advance Convertible Note (incorporated by reference to Exhibit 10.1 of the Issuer's Form 8-K filed on August 18, 2008).
10.14	Common Stock Purchase Warrant issued with Multiple Advance Convertible Note (incorporated by reference to Exhibit 10.2 of the Issuer's Form 8-K filed on August 18, 2008).
10.15	Employment Agreement with Andrey Semechkin (incorporated by reference to Exhibit 10.4 of the Issuer's Form 8-K filed on January 5, 2009).
10.16	Employment Agreement with Ruslan Semechkin (incorporated by reference to Exhibit 10.5 of the Issuer's Form 8-K filed on January 5, 2009).
10.17	Preferred Stock Purchase Agreement, dated June 30, 2009 (incorporated by reference to Exhibit 10.1 of the Issuer's Form 8-K filed on July 6, 2009).
10.18	Employment Agreement with Brian Lundstrom dated November 5, 2009.*
10.19	Form of Stock Option Agreement for stock options granted outside of the 2006 Equity Participation Plan.*
21.1	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 of the Registrant's Form 8-K filed on December 29, 2006).
23.1	Consent of Vasquez & Company LLP
23.2	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)
* to be filed by amendment	



801 South Grand Avenue, Suite 400 • Los Angeles, CA 90017-4646 • Ph. (213) 629-9094 • Fax (213) 996-4242 • [www.vasquezcpa.com](http://www.vasquezcpa.com)

**Consent of Independent Registered Public Accounting Firm**

International Stem Cell Corporation  
Oceanside, California

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated March 30, 2009 relating to the consolidated financial statements of International Stem Cell Corporation which appears on Page F-2 in the Company's Annual Report on Form 10-K for the year ended December 31, 2008 which is contained in that Prospectus. Our report includes an explanatory paragraph regarding the Company's ability to continue as a going concern.

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

*Vasquez & Company LLP*

Los Angeles, California  
January 26, 2010

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Registered with Public Company Accounting Oversight Board

Member of Private Companies Practice Section & Center for Public Company Audit Firms