UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2014

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number: 0-51891

INTERNATIONAL STEM CELL CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware	**20-4494098**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
5950 Priestly Drive Carlsbad, CA	**92008**
(Address of Principal Executive Offices)	**(Zip Code)**

(760) 940-6383
(Registrant's telephone number)

Indicated by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES ☒ NO ☐

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.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of November 7, 2014 the Registrant had 224,304,073 shares of Common Stock outstanding.

International Stem Cell Corporation and Subsidiaries
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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

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

	September 30, 2014 (Unaudited)	December 31, 2013
Assets		
Cash and cash equivalents	$ 471	$ 2,243
Accounts receivable, net of allowance for doubtful accounts of $19 at September 30, 2014 and December 31, 2013	464	306
Inventory, net	1,533	1,369
Prepaid expenses and other current assets	359	658
Restricted cash	50	50
Total current assets	2,877	4,626
Property and equipment, net	781	830
Intangible assets, net	2,649	2,250
Deposits and other assets	57	33
Total assets	$ 6,364	$ 7,739
Liabilities, Redeemable Preferred Stock and Stockholders' Deficit		
Accounts payable	$ 715	$ 532
Accrued liabilities	1,299	1,290
Deferred revenue	—	3
Related party payable	5	21
Advances	250	250
Fair value of warrant liability	—	4,925
Total current liabilities	2,269	7,021
Convertible Redeemable Series G Preferred stock, $0.001 par value, 5,000,000 shares authorized, issued and outstanding at September 30, 2014 and December 31, 2013, liquidation preference of $5,000 at September 30, 2014 and December 31, 2013	4,941	4,941
Commitments and contingencies		
Stockholders' Deficit		
Series D Preferred stock, $0.001 par value, 50 shares authorized, 43 issued and outstanding at September 30, 2014 and December 31, 2013, with liquidation preference of $4,320 at September 30, 2014 and December 31, 2013	—	—
Series B Preferred stock, $0.001 par value, 5,000,000 shares authorized, 300,000 issued and outstanding at September 30, 2014 and December 31, 2013, with liquidation preferences of $417 and $403 at September 30, 2014 and December 31, 2013, respectively	—	—
Common stock, $0.001 par value, 600,000,000 and 300,000,000 shares authorized at September 30, 2014 and December 31, 2013, respectively, 224,274,073 and 151,175,053 shares issued and outstanding at September 30, 2014 and December 31, 2013, respectively	224	151
Additional paid-in capital	89,080	77,897
Accumulated deficit	(90,150)	(82,271)
Total stockholders' deficit	(846)	(4,223)
Total liabilities, redeemable preferred stock and stockholders' deficit	$ 6,364	$ 7,739

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2014	2013	2014	2013
Revenues				
Product sales	$ 1,963	$ 1,670	$ 5,200	$ 4,412
Total revenue	1,963	1,670	5,200	4,412
Expenses				
Cost of sales	518	447	1,366	1,110
Research and development	1,392	932	3,761	2,627
Selling and marketing	745	632	2,093	1,823
General and administrative	1,342	1,362	4,322	4,461
Total expenses	3,997	3,373	11,542	10,021
Loss from operating activities	(2,034)	(1,703)	(6,342)	(5,609)
Other income (expense)				
Change in fair value of warrant liability	—	27	1,894	27
Fair value of warrant liability in excess of proceeds	—	(1,390)	—	(1,390)
Financing transaction costs	—	(738)	—	(738)
Warrant exchange inducement expense	—	—	(3,445)	—
Miscellaneous expense	(8)	—	(8)	(20)
Interest expense	—	—	(2)	—
Sublease income	8	5	24	18
Total other income (expense), net	—	(2,096)	(1,537)	(2,103)
Loss before income taxes	(2,034)	(3,799)	(7,879)	(7,712)
Provision for income taxes	—	—	—	—
Net loss	$ (2,034)	$ (3,799)	$ (7,879)	$ (7,712)
Net loss applicable to common stockholders	$ (2,034)	$ (3,799)	$ (7,879)	$ (7,712)
Net loss per common share-basic and diluted	$ (0.01)	$ (0.03)	$ (0.04)	$ (0.07)
Weighted average shares-basic and diluted	218,278	128,243	181,037	114,830

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Convertible Redeemable Series G Preferred Stock		Common Stock		Convertible Preferred Stock						Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Deficit
					Series B		Series C		Series D				
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2012	5,000	$ 4,941	87,389	$ 87	300	$ —	2,000	$ 2	—	$ —	$ 69,945	$ (71,792)	$ (1,758)
Issuance of common stock from conversion of Series C preferred stock			8,000	8			(2,000)	(2)			(6)		—
Issuance of common stock													
For cash, net of issuance costs of $178			37,991	38							3,343		3,381
For services			840	1							239		240
From exercises of warrants, net of commissions of $98			16,955	17							2,683		2,700
Stock-based compensation											1,693		1,693
Net loss for the year ended December 31, 2013												(10,479)	(10,479)
Balance at December 31, 2013	5,000	4,941	151,175	151	300	—	—	—	—	—	77,897	(82,271)	(4,223)
Issuance of common stock													
For cash, net of issuance costs of $169			27,568	27							3,570		3,597
For services			865	1							138		139
For warrant exchange, net of issuance costs of $49			44,666	45							6,383		6,428
Stock-based compensation											1,092		1,092
Net loss for the period ended September 30, 2014												(7,879)	(7,879)
Balance at September 30, 2014	5,000	$ 4,941	224,274	$ 224	300	$ —	—	$ —	—	$ —	$ 89,080	$ (90,150)	$ (846)

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	Nine Months Ended September 30,	
	2014	**2013**
Cash flows from operating activities		
Net loss	$ (7,879)	$ (7,712)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	349	347
Stock-based compensation expense	1,212	1,291
Common stock issued for services	139	180
Fair value of warrant liability in excess of proceeds	—	1,390
Financing transaction costs	—	738
Change in fair value of warrant liability	(1,894)	(27)
Warrant exchange inducement expense	3,445	—
Allowance for doubtful accounts	—	22
Allowance for inventory obsolescence	30	40
Loss on disposal of fixed assets	8	16
Impairment of intangible assets	39	32
Changes in operating assets and liabilities		
(Increase) decrease in accounts receivable	(158)	(148)
(Increase) decrease in inventory	(194)	(201)
(Increase) decrease in prepaid assets and other assets	299	49
(Increase) decrease in restricted cash	—	(50)
(Increase) decrease in deposits	(24)	(13)
Increase (decrease) in accounts payable	184	(447)
Increase (decrease) in accrued liabilities	9	326
Increase (decrease) in deferred revenue	(3)	(77)
Increase (decrease) in related party payable	(16)	11
Net cash used in operating activities	(4,454)	(4,233)
Investing activities		
Purchases of property and equipment	(262)	(34)
Proceeds from sale of property and equipment	1	—
Payments for patent licenses and trademarks	(485)	(480)
Net cash used in investing activities	(746)	(514)
Financing activities		
Proceeds from issuance of common stock	3,646	6,289
Proceeds from exercise of warrants and options	—	242
Payment of offering costs	(218)	(646)
Net cash provided by financing activities	3,428	5,885
Net increase (decrease) in cash and cash equivalents	(1,772)	1,138
Cash and cash equivalents, beginning of period	2,243	654
Cash and cash equivalents, end of period	$ 471	$ 1,792
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 2	$ 2
Warrant liability reclassified to equity upon warrant exchange	$ 3,031	$ —
Warrants issued for placement agent services	$ —	$ 115

See accompanying notes to the unaudited condensed consolidated financial statements.

1. Organization and Significant Accounting Policies

Business Combination and Corporate Restructure

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

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

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

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

Going Concern

The Company needs to raise additional working capital. The timing and degree of any future capital requirements will depend on many factors. Currently, the Company's burn rate is approximately $495,000 per month, excluding capital expenditures and patent costs averaging $83,000 per month. There can be no assurance that the Company will be successful in maintaining its normal operating cash flow, and that such cash flows will be sufficient to sustain the Company's operations through 2014. Based on the above, there is substantial doubt about the Company's ability to continue as a going concern. The condensed consolidated financial statements were prepared assuming that the Company is a going concern. The condensed consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

Management's plans in regard to these matters are focused on managing its cash flow, the proper timing of its capital expenditures, and raising additional capital or financing in the future. In December 2013, the Company filed a registration statement with the Securities Exchange Commission (the "SEC"), which allows the Company to sell up to $10,250,000 of common stock to Lincoln Park Capital Fund, LLC ("Lincoln Park") from time to time through January 2017 at the Company's discretion pursuant to the terms of a Common Stock Purchase Agreement entered into with Lincoln Park on December 10, 2013 (the "Purchase Agreement"). The registration statement was declared effective on January 13, 2014. However, the Company cannot predict the timing or amount of any funds that it may actually receive. During the nine months ended September 30, 2014, to obtain funding for working capital purposes, the Company sold a total of 8,200,000 shares of common stock under the Purchase Agreement with Lincoln Park, raising approximately $1,588,000. For further discussion, see Note 6, Capital Stock. In connection with agreements entered into as part of a private placement effected October 14, 2014, the Company may not sell shares to Lincoln Park until March 2016. Additionally, pursuant to the terms of the October 2014 private placement, the Company may not issue securities, subject to certain exceptions, until the 90th day following the effective date of a registration statement on Form S-1 filed with the SEC on November 3, 2014 in connection with registering for resale certain shares of common stock underlying securities issued in the private placement, provided, however, that the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers and directors at market prices. For further discussion, see Note 12, Subsequent Events.

During the third quarter of 2014, the Company sold an additional 10,444,445 shares of common stock to the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin, and Dr. Ruslan Semechkin, Chief Scientific Officer and a director, for an aggregate of $1,000,000, as discussed in Note 6, Capital Stock.

Basis of Presentation

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

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

These financial statements do not include all information and notes required by generally accepted accounting principles for complete financial statements. However, except as disclosed herein, there has been no material change in the information disclosed in the notes to consolidated financial statements included in the annual report on Form 10-K of International Stem Cell Corporation and Subsidiaries for the year ended December 31, 2013.

In the opinion of management, the unaudited condensed consolidated financial information for the interim periods presented reflects all adjustments, consisting of only normal and recurring adjustments, necessary for a fair presentation of the Company's consolidated results of operations, financial position and cash flows. The unaudited condensed consolidated financial statements and the related notes should be read in conjunction with the Company's audited consolidated financial statements for the year ended December 31, 2013 included in the Company's annual report on Form 10-K. Operating results for interim periods are not necessarily indicative of the operating results for any other interim period or an entire year.

Principles of Consolidation

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

Reclassification

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

Cash Equivalents

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

Restricted Cash

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

Inventories

Inventories are accounted for using the first-in, first-out (FIFO) method for LSC products and specific identification method for LCT products. Inventory balances are stated at the lower of cost or market. Laboratory supplies used in the research and development process are expensed as consumed. Inventory is reviewed periodically for product expiration and obsolescence and is adjusted accordingly.

Accounts Receivable

Trade accounts receivable are recorded at the net invoice value and are not interest bearing. Accounts receivable primarily consist of trade accounts receivable from the sales of LCT's products, timing of cash receipts by the Company related to LSC credit card sales to customers, as well as LSC trade receivable amounts related to spa and distributor sales. The Company considers receivables past due based on the contractual payment terms. The Company reviews its exposure to accounts receivable and reserves specific amounts if collectability is no longer reasonably assured. As of September 30, 2014 and December 31, 2013, the Company had an allowance for doubtful accounts totaling $19,000.

Property and Equipment

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

Intangible Assets

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

Long-Lived Asset Impairment

The Company reviews long-lived assets for impairment when events or changes in business conditions indicate that their carrying value may not be recovered, and at least annually. The Company considers assets to be impaired and writes them down to fair value if expected associated undiscounted cash flows are less than the carrying amounts. Fair value is the present value of the associated cash flows. The Company did not recognize material impairments on its long-lived assets during the three and nine months ended September 30, 2014 and 2013.

Product Sales

The Company recognizes revenue from product sales at the time of shipment to the customer, provided no significant obligations remain and collection of the receivable is reasonably assured. If the customer has a right of return, the Company recognizes product revenues upon shipment, provided that future returns can be reasonably estimated. In the case where returns cannot be reasonably estimated, revenue will be deferred until such estimates can be made or the right of return has lapsed. LCT contributed 52% and 51% of total revenue during the nine months ended September 30, 2014 and 2013, respectively. LSC contributed 48% and 49% of total revenue during the nine months ended September 30, 2014 and 2013, respectively.

Deferred Revenue and Allowance for Sales Returns

The Company recognizes revenue from product sales when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price to the buyer is fixed or determinable, and collectability is reasonably assured. However, the LSC products have a 30-day product return guarantee for website sales. The Company has estimated the historical rate of returns for the 30-day product return guarantee, which has remained consistent for the three and nine months ended September 30, 2014 as compared to the years ended December 31, 2013 and 2012. At September 30, 2014 and December 31, 2013, the estimated allowance for sales returns was $10,000. At September 30, 2014 and December 31, 2013, net deferred revenue totaled $0 and $3,000, respectively.

Cost of Sales

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

Research and Development Costs

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

Stock-Based Compensation

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

Fair Value Measurements

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

Level 1 Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2 Quoted prices in markets that are not active, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability; and

Level 3 Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The table below sets forth a summary of the fair values of the Company's assets and liabilities as of September 30, 2014 (in thousands):

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

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

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

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

	Warrants to purchase common stock
Beginning balance at December 31, 2012	$ —
Issuances of warrants	5,986
Exercise of warrants	(1,815)
Adjustments to estimated fair value	754
Ending balance at December 31, 2013	4,925
Issuances of warrants	—
Exercise of warrants	—
Adjustments to estimated fair value	(1,894)
Warrants exchanged for common stock	(3,031)
Ending balance at September 30, 2014	$ —

Income Taxes

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

Use of Estimates

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

Fair Value of Financial Instruments

The Company believes that the carrying value of its cash and cash equivalents, receivables, accounts payable and accrued liabilities as of September 30, 2014 and December 31, 2013 approximate their fair values because of the short-term nature of those instruments. The fair value of certain warrants was determined at each quarterly reporting date as necessary using the Monte-Carlo valuation methodology.

Income (Loss) Per Common Share

The computation of net loss per common share is based on the weighted average number of shares outstanding during each period. The computation of diluted earnings per common share is based on the weighted average number of shares outstanding during the period plus the common stock equivalents, which would arise from the exercise of stock options and warrants outstanding using the treasury stock method and the average market price per share during the period. At September 30, 2014, there were 308,875 non-vested restricted stock awards, 20,770,037 vested and 6,372,173 non-vested stock options outstanding, and 7,762,500 warrants outstanding; and at September 30, 2013, there were 596,250 non-vested restricted stock awards, 67,395,832 shares issuable upon exercise of warrants, and 17,914,518 vested and 5,780,175 non-vested stock options outstanding. These restricted stock awards, stock options and warrants were not included in the diluted loss per share calculation because the effect would have been anti-dilutive.

Comprehensive Income

Comprehensive income or loss includes all changes in equity except those resulting from investments by owners and distributions to owners. The Company did not have any items of comprehensive income or loss other than net loss from operations for the three and nine months ended September 30, 2014 and 2013.

Registration Payment Arrangements

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

Recent Accounting Pronouncements

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

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

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

2. Inventory

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

	September 30, 2014	December 31, 2013
Raw materials	$ 199	$ 147
Work in process	454	446
Finished goods	1,019	902
Total	1,672	1,495
Less: allowance for inventory obsolescence	(139)	(126)
Inventory, net	$ 1,533	$ 1,369

3. Property and Equipment

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

	September 30, 2014	December 31, 2013
Machinery and equipment	$ 1,348	$ 1,170
Computer equipment	214	246
Office equipment	203	203
Leasehold improvements	757	745
Construction in progress	64	—
	2,586	2,364
Less: accumulated depreciation and amortization	(1,805)	(1,534)
Property and equipment, net	$ 781	$ 830

Depreciation expenses for the three and nine months ended September 30, 2014 were $101,000 and $302,000, respectively. During the same periods in the prior year, depreciation expenses were $100,000 and $301,000, respectively.

4. Patent Licenses

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

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

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

Pursuant to the Amendment, all minimum R&D requirements and all milestone payments due to ACT under the Exclusive License Agreement have been eliminated. The Company will no longer pay any royalties under the ACT IP Agreement and Infigen IP Agreement. The obligation to pay royalties that ranged from 6%-12% under the UMass IP Agreement has been reduced to 0.25% of the net sales of products using technology covered by the UMass IP Agreement; and the obligation to pay a minimum annual license fee of $150,000 has been reduced to $75,000 annually, payable in two installments to ACT. As of September 30, 2014, the total amount capitalized related to the acquired ACT licenses was $747,000, and $2,417,000 related to the other patent acquisition costs.

Patents and patent licenses were recorded at cost of $3,164,000 and $2,760,000 at September 30, 2014 and December 31, 2013, respectively. Amortization expense for the three months ended September 30, 2014 and 2013 was $16,000 and $15,000, respectively; and amortization expense for the nine months ended September 30, 2014 and 2013 was $47,000 and $45,000, respectively. All amortization expense related to intangible assets is included in general and administrative expense. Accumulated amortization as of September 30, 2014 and December 31, 2013 was $556,000 and $510,000, respectively.

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

	Amount
2014 (remaining three months)	$ 16
2015	62
2016	62
2017	62
2018	62
Thereafter	2,344
Total	$ 2,608

5. Advances

On June 18, 2008, the Company entered into an agreement with BioTime, Inc. ("Bio Time"), where Bio Time will pay an advance of $250,000 to LCT to produce, make, and distribute Joint Products. The $250,000 advance will be paid down with the first $250,000 of net revenues that otherwise would be allocated to LCT under the agreement. As of September 30, 2014, no revenues were realized from this agreement.

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

6. Capital Stock

As of September 30, 2014, the Company is authorized to issue 600,000,000 shares of common stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, $0.001 par value per share.

Preferred Stock Transactions

Series B Preferred Stock

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

The total purchase price received by the Company was $400,000. The Series B Preferred is convertible into shares of common stock at the initial conversion ratio of two shares of common stock for each share of Series B Preferred converted (which was established based on an initial conversion price of $0.50 per share), and the Series B Warrants were exercisable at $0.50 per share until five years from the issuance of the Series B Warrants, which expired unexercised in May 2013. The Series B Preferred contain anti-dilution clauses whereby, if the Company issues equity securities or securities convertible into equity at a price below the conversion price of the Series B Preferred, such conversion price shall be adjusted downward to equal the price of the new securities. During the first quarter of 2013, the Company issued additional shares of common stock at $0.20 per share, triggering an adjustment in the conversion price of the Series B Preferred to $0.20. As a result of the 2013 S-1 July Registered Offering discussed below, the conversion price for the Series B Preferred was reduced to $0.15 and $0.1452 in the third and fourth quarters of 2013, respectively. During the second quarter of 2014, the 2014 Warrant Exchange Agreements discussed below triggered an adjustment in the current conversion price of the Series B Preferred to $0.0667 per share. The Series B Preferred has a priority (senior to the shares of common stock) on any sale or liquidation of the Company equal to the purchase price of the Series B Units, plus a liquidation premium of 6% per year. If the Company elects to declare a dividend in any year, it must first pay to the Series B Preferred holder a dividend equal to the amount of the dividend the Series B Preferred holder would receive if the Series B Preferred were converted just prior to the dividend declaration. Each share of Series B Preferred has the same voting rights as the number of shares of common stock into which it would be convertible on the record date. As of September 30, 2014 and December 31, 2013, there were 300,000 shares of the Series B Preferred issued and outstanding.

Series C Preferred Stock

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

As of September 30, 2014 and December 31, 2013, there were 0 shares of the Series C Preferred issued and outstanding. On January 22, 2013, the holders of Series C Preferred converted all of the outstanding shares of Series C Preferred into common stock at $0.25 per share, or a total of 8,000,000 shares of common stock.

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

Series D Preferred Stock

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

10 shares of the Series D Preferred were issued to X-Master Inc., which is a related party and affiliated with the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin and Dr. Ruslan Semechkin, Chief Scientific Officer and a director; and 33 shares of the Series D Preferred were issued to Dr. Andrey Semechkin. As of September 30, 2014 and December 31, 2013, there were 43 shares of the Series D Preferred issued and outstanding.

On December 4, 2012, the holders of all of the outstanding shares of Series D Preferred executed a Waiver of Anti-Dilution Rights (the "Anti-Dilution Waiver") pursuant to which such holders waived all anti-dilution adjustment rights under the Certificate of Designation for the Series D Preferred in connection with the offering of securities pursuant to the registration statement originally

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

Series G Preferred Stock

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

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

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

The Company determined that the Series G Preferred have a contingent redemption feature allowing redemption by the holder under only some very limited circumstances ("deemed liquidation events"). As the event that may trigger the redemption of the convertible preferred stock is not solely within the Company's control, the convertible preferred stock has been classified as mezzanine equity (outside of permanent equity) on the Company's consolidated balance sheet. Additionally, legal costs related to the Series G Preferred financing in the amount of $59,000 were recorded in the mezzanine equity as well.

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

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

During the first quarter of 2014, the Company issued additional shares of common stock to Lincoln Park, under the Purchase Agreement with Lincoln Park, at various prices ranging from $0.175 to $0.223 per share, triggering numerous adjustments in the conversion price and the conversion ratio of the Series G Preferred. During the second quarter of 2014, the Company issued additional shares of common stock to Lincoln Park, under the Purchase Agreement with Lincoln Park, at various prices ranging from $0.150 to $0.185 per share; and sold shares at $0.15 and $0.10 per share to Dr. Andrey Semechkin and Dr. Ruslan Semechkin, the Company's Co-Chairman and Chief Executive Officer, and Chief Scientific Officer and a director, respectively, triggering numerous adjustments in the conversion price and the conversion ratio of the Series G Preferred. Also during the second quarter of 2014, common shares were issued at $0.0667 per share as part of the 2014 Warrant Exchange Agreements. During the third quarter of 2014, the Company sold additional shares of common stock to Dr. Andrey Semechkin, Dr. Ruslan Semechkin, and other executives of the Company for prices ranging from $0.09 to $0.10 per share, triggering adjustments in the conversion price and conversion ratio of the Series G Preferred Stock. As of September 30, 2014, the adjusted conversion price and the conversion ratio for the Series G Preferred were $0.2498 per share and 4.0025 shares, respectively.

Common Stock Transactions

2013 Securities Purchase Agreements for Common Stock

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

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

2013 S-1 July Registered Offering

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

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

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

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

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

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

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

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

On October 24, 2013, the remaining 3,245,178 Series B Warrants expired unexercised. At September 30, 2014, there were no Series A and Placement Agent warrants outstanding. See *2014 Warrant Exchange Agreements* below for the detailed discussion of common stock issued in the second quarter of 2014 in exchange for the cancellation of the warrants. At December 31, 2013, total Series A and Placement Agent warrants outstanding were 36,554,822 and 666,666, respectively, which the Company had reserved 37,888,154 shares of common stock for future issuance.

2014 Securities Purchase Agreements for Common Stock

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

2014 Warrant Exchange Agreements

On June 11, 2014, the Company entered into a series of warrant exchange agreements (the "Warrant Exchange Agreements") with the holders of its Series A Warrants and Placement Agent Warrants that were issued by the Company pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, the Company agreed to issue a total of 44,665,783 shares of common stock (the "Exchange Shares") to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 36,554,822 shares of common stock and the Placement Agent Warrants to purchase 666,666 shares of common stock and Series A Warrants. Dr. Andrey Semechkin and Dr. Ruslan Semechkin, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 10,088,154 shares of common stock for 12,105,784 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares. Upon settlement of the exchange transaction, there were no remaining Series A Warrants or Placement Agent Warrants outstanding. See Note 9, Stock Options and Warrants, *2014 Warrants Exchange Agreements*- for detailed discussion of the accounting treatment of the Warrant Exchange transaction.

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

2013 Lincoln Park Capital Fund, LLC Stock Purchase Agreement

On December 10, 2013, the Company entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has agreed to purchase up to an aggregate of $10,250,000 of common stock (subject to certain limitations) from time to time through January 2017. Of the aggregate $10,250,000 of common stock that may be sold to Lincoln Park, on December 11, 2013, the Company

sold 1,666,666 shares of common stock to Lincoln Park for an aggregate purchase price of $250,000 pursuant to the Purchase Agreement, which is referred to as the Initial Purchase. Upon execution of the Purchase Agreement, the Company paid to Lincoln Park $155,000, as a cash fee, for their commitment to purchase additional shares of common stock under the Purchase Agreement.

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

During the three and nine months ended September 30, 2014, the Company sold 0 and 8,200,000 shares, respectively, to Lincoln Park raising approximately $0 and $1,588,000, respectively, for working capital purposes. From commencement through to September 30, 2014, the Company has sold a total of 9,866,666 shares of common stock to Lincoln Park for an aggregate of $1,838,000 under the Agreement. As of September 30, 2014, there remained 10,133,334 shares available for sale up to a total of $8,412,000 under the Purchase Agreement with Lincoln Park.

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

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

Pursuant to the terms of a securities purchase agreement entered into with investors in connection with a private placement effected October 14, 2014, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park until March 2016. See Note 12, Subsequent Event.

Aspire Common Stock Purchase Agreement

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

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

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

Reserved Shares

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

Options outstanding	27,142,210
Options available for future grant	8,423,574
Convertible preferred stock	89,012,588
Warrants	7,762,500
	132,340,872

7. Related Party Transactions

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

During the first quarter of 2011, the Company executed an operating lease for its corporate offices with S Real Estate Holdings LLC. S Real Estate Holdings LLC is owned by Dr. Ruslan Semechkin, the Company's Chief Scientific Officer and a director and was previously owned by Dr. Andrey Semechkin, the Company's Chief Executive Officer and Co-Chairman of the Board of Directors. The lease agreement was negotiated at arm's length and was reviewed by the Company's outside legal counsel. The terms of the lease were reviewed by a committee of independent directors, and the Company believes that, in total, those terms are at least as favorable to the Company as could be obtained for comparable facilities from an unaffiliated party. For the three months ended September 30, 2014 and 2013, the Company recorded $41,000 and $39,000, respectively, in rent expense that was related to the facility lease arrangement with related parties. Additionally, during the nine months ended September 30, 2014 and 2013, the Company recorded $122,000 and $118,000, respectively, related to the same arrangement with the related party.

8. Income Taxes

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

9. Stock Options and Warrants

Stock Options

The Company adopted the 2006 Equity Participation Plan (the "2006 Plan"), which provides for the grant of stock options, restricted stock and other equity based awards. Awards for up to 15,000,000 shares may be granted to employees, directors and consultants under this Plan. The options granted under the 2006 Plan may be either qualified or non-qualified options. Options may be granted with different vesting terms and expire no later than 10 years from the date of grant.

In April 2010, the Company adopted the 2010 Equity Participation Plan (the "2010 Plan"), which provides for the grant of stock options, restricted stock and other equity based awards. Awards for up to 18,000,000 shares may be granted to employees, directors and consultants under the 2010 Plan. The options granted under the 2010 Plan may be either qualified or non-qualified options. Options may be granted with different vesting terms and expire no later than 10 years from the date of grant.

In November and December of 2009, the Company issued non-qualified stock options to purchase 10,257,593 shares of common stock outside the 2006 and 2010 option plans to certain employees and consultants. These options vest over 50 months and expire no later than 10 years from the date of grant.

Total stock-based compensation expense for the three and nine months ended September 30, 2014 and 2013 was comprised of the following (in thousands):

	Three Months Ended September 30, 2014	Three Months Ended September 30, 2013	Nine Months Ended September 30, 2014	Nine Months Ended September 30, 2013
Cost of sales	$ 15	$ —	$ 45	$ —
Research and development	78	94	221	272
Selling and marketing	13	10	36	30
General and administrative	384	337	910	989
	$ 490	$ 441	$ 1,212	$ 1,291

Unrecognized compensation expense related to stock options as of September 30, 2014 was $1,144,000, which is expected to be recognized over a weighted average period of approximately 1.80 years.

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

The fair value of options granted is estimated at the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions for the three and nine months ended September 30, 2014 and 2013:

	Three Months Ended September 30, 2014	Three Months Ended September 30, 2013	Nine Months Ended September 30, 2014	Nine Months Ended September 30, 2013
Significant assumptions (weighted average):				
Risk-free interest rate at grant date	2.00%	0.00%	1.91%	0.95%
Expected stock price volatility	98.23%	0.00%	99.65%	118.34%
Expected dividend payout	0%	0%	0%	0%
Expected option life based on management's estimate	6.1 yrs	0.0 yrs	6.1 yrs	6.1 yrs

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

	Number of Options Issued Under 2006 Plan and 2010 Plan	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2012	15,122,900	$ 1.18		
Granted	1,491,500	$ 0.26		
Exercised	—	$ —		
Canceled or expired	(586,000)	$ 0.61		
Outstanding at December 31, 2013	16,028,400	$ 1.12		
Granted	4,304,000	$ 0.15		
Exercised	—	$ —		
Canceled or expired	(799,483)	$ 0.53		
Outstanding at September 30, 2014	19,532,917	$ 0.93	6.47 years	$ —
Vested and expected to vest at September 30, 2014	18,665,045	$ 0.97	6.33 years	$ —
Exercisable at September 30, 2014	13,160,744	$ 1.20	5.29 years	$ —

	Number of Options Issued Outside the Plan	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2012	8,254,232	$ 0.65		
Granted	—	$ —		
Exercised	—	$ —		
Canceled or expired	(644,939)	$ 1.00		
Outstanding at December 31, 2013	7,609,293	$ 0.62		
Granted	—	$ —		
Exercised	—	$ —		
Canceled or expired	—	$ —		
Outstanding, vested and exercisable at September 30, 2014	7,609,293	$ 0.62	5.11 years	$ —

Restricted Stock Awards

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

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

	Restricted Stock Issued from the 2006 Plan and 2010 Plan	Weighted Average Grant Date Fair Value
Unvested at December 31, 2012	335,000	$ 0.32
Granted	961,000	$ 0.24
Vested	(1,029,750)	$ 0.27
Forfeited	(121,250)	$ 0.25
Unvested at December 31, 2013	145,000	$ 0.23
Granted	865,459	$ 0.17
Vested	(701,584)	$ 0.20
Forfeited	—	$ —
Unvested at September 30, 2014	308,875	$ 0.19

The fair value of the restricted stock awards is based on the market value of the common stock on the date of grant. The total grant-date fair value of restricted stock awards vested during the nine months ended September 30, 2014 and 2013 was approximately $143,000 and $222,000, respectively. The Company recognized approximately $54,000 and $43,000 of stock-based compensation expense related to the restricted stock awards for the three months ended September 30, 2014 and 2013, respectively. Additionally, during the nine months ended September 30, 2014 and 2013, the Company recognized approximately $139,000 and $180,000 of stock-based compensation expense related to the restricted stock awards, respectively. As of September 30, 2014, total unrecognized compensation costs related to unvested awards was approximately $44,000, which is expected to be recognized over a weighted-average period of approximately 0.40 years.

Warrants

Warrants Issued with Preferred Stock

During 2008, in connection with the Company's fund raising efforts, two warrants to purchase shares of common stock were issued with the purchase of one share of Series A Preferred Stock, where an additional 2,000,000 common stock warrants were outstanding and two warrants to purchase shares of common stock were issued with the purchase of one share of Series B Preferred Stock, where an additional 1,100,000 common stock warrants were outstanding. During the second quarter of 2010, the holders of the warrants issued to the purchasers of the Series A Preferred Stock and Series B Preferred Stock, signed a waiver to give up their rights to the anti-dilution provisions related to the warrants and the exercise price was fixed at $0.25.

As of December 31, 2013, there were no outstanding warrants related to the Series A Preferred Stock and Series B Preferred Stock. Warrants related to the Series A Preferred Stock expired in January 2013, and warrants related to the Series B Preferred Stock expired in July 2013.

Warrants Issued with Common Stock

2013 Securities Purchase Agreements for Common Stock

In conjunction with the Company's sale of 10,125,000 shares of common stock on January 22, 2013, the Company issued warrants convertible into 5,062,500 shares of common stock at an exercise price of $0.20 per share. The warrants have a five-year term. These warrants are held by Dr. Andrey Semechkin and Dr. Simon Craw, the Company's Co-Chairman and Chief Executive Officer and the Company's Executive Vice President Business Development, respectively.

On March 12, 2013 the Company issued warrants convertible into 2,500,000 shares of common stock in conjunction with the sale of 5,000,000 shares of common stock. These warrants have a five-year term and an exercise price of $0.20 per share. Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer is the holder of 250,000 of these warrants.

2013 S-1 July Registered Offering

On July 24, 2013 the Company sold 20,000,000 Units, with each Unit consisting of one share of common stock and one Series A Warrant. The Series A Warrants were convertible into 20,000,000 shares of common stock at an exercise price of $0.15 per share. The warrants have a five year term and were immediately exercisable. In addition, the Company issued 20,000,000 Series B Warrants each to purchase one Unit. The Series B Warrants were immediately exercisable at an initial exercise price of $0.15 per Unit, subject to adjustment and expired on October 24, 2013. The Units issuable upon exercise of the Series B Warrants consisted of 20,000,000 shares of common stock and 20,000,000 Series A Warrants, which were convertible into an additional 20,000,000 shares of common stock at an exercise price of $0.15 per share. All Series A Warrants had an expiration date of the fifth anniversary of the transaction close, July 24, 2018, regardless of the date the Series A Warrants were issued. See the *2014 Warrant Exchange Agreements* - discussed below.

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

The Series B Warrants were immediately exercisable at an initial exercise price of $0.15, subject to adjustment. Beginning at the close of trading on the 60th trading day following the date of issuance, and effective beginning on the fifth trading day immediately preceding such 60th trading day, the Series B Warrants were exercisable at a per unit exercise price equal to the lower of (i) the then-effective exercise price per unit and (ii) 80% of the closing bid price of the Company's common stock on such 60th trading day. If prior to the close of trading on the 60th trading day after the date of issuance (and on any of the five trading days immediately preceding such day), a holder of the Series B Warrants had delivered one or more exercise notices to the Company and paid all or any part of the exercise price with respect thereto, then on the first trading day immediately following such 60th trading day the Company was obligated to deliver to such holder an amount in cash equal to the positive difference (if any) between (x) the exercise price actually paid by such holder and (y) the product of (I) the aggregate number of units elected to be purchased in such exercise notices, multiplied by (II) 80% of the closing bid price of the Company's common stock on such 60th trading day. The Series B Warrants

expired at the close of business on the 65th trading day following the date of issuance, October 24, 2013. The Series B Warrants were issued separately from the common stock and the Series A Warrants included in the Units, and were transferable separately, immediately thereafter. Series B Warrants were issued in certificated form only. Investors in the Offering received one Series B Warrant for each Unit purchased by them in the Offering. No additional consideration was paid by holders of the Series B Warrants.

The exercise price and number of shares of common stock issuable upon exercise of the Series A Warrants were subject to adjustment in the event of any stock dividends and splits, reverse stock split, stock dividend, recapitalization, reorganization or similar transaction, as described in the Series A Warrants. The Series A Warrants also contained full ratchet anti-dilution protection upon the issuance of any common stock, securities convertible into common stock, or certain other issuances at a price below the then existing exercise price of the Series A Warrants, with certain exceptions. The exercise price and number of Units issuable on exercise of the Series B Warrants were subject to adjustment in the event of any stock split, reverse stock split, stock dividend, recapitalization, reorganization or similar transaction, as described in the Series B Warrants.

The Series A Warrants were exercisable on a "cashless" basis in certain circumstances. In addition, in the event of a fundamental transaction that is (i) an all cash or substantially all cash transaction, (ii) a "Rule 13e 3 transaction" as defined in Rule 13e-3 under the Securities Exchange Act of 1934, as amended, or (iii) with certain limited exceptions, a fundamental transaction involving a person or entity not traded on The New York Stock Exchange, Inc., The NYSE MKT, The NASDAQ Global Select Market, The NASDAQ Global Market or The NASDAQ Capital Market, then the Company or any successor entity would pay at the holder's option, exercisable at any time concurrently with or within 45 days after the consummation of the fundamental transaction, an amount of cash equal to the value of the Series A Warrant as determined in accordance with the Black Scholes option pricing model.

The Company has accounted for the warrants in accordance with current accounting guidance, which defines how freestanding contracts that are indexed to and potentially settled in a Company's own stock should be measured and classified. The authoritative accounting guidance prescribes that only warrants issued under contracts that cannot be net-cash settled and are both indexed to and settled in the Company's common stock can be classified as equity. As the Series A Warrant, Series B Warrant, and Placement Agent Warrant agreements did not meet the specific conditions for equity classification, the Company was required to classify the fair value of the warrants issued as a liability, with subsequent changes in fair value to be recorded as income (loss) in the statement of operations upon revaluation of the fair value of warrant liability at each reporting period. Valuation of the Warrants was estimated at each quarter and as of the year ended December 31, 2013 using the Monte-Carlo simulation model. The following assumptions were used as inputs to the model at December 31, 2013: stock price of $0.21 and warrant exercise price of $0.15 as of the valuation date; the Company's historical stock price volatility of 84.3%; risk free interest rate on U.S. treasury notes of 1.55%; warrant expiration of 4.56 years; and a zero dividend rate for the Series A Warrants and the Placement Agent Warrants; simulated as a daily interval and anti-dilution impact if the Company had to raise capital below $0.15 per share.

The fair value of the warrant liability at the issuance date exceeded the gross proceeds received for the common shares, Series A Warrants and the Series B Warrants by $1,390,000. The Series A Warrants, Series B Warrants, and Placement Agent Warrants had fair values of $1,725,000, $2,645,000 and $115,000 at issuance, respectively. The classification and valuation of the warrants resulted in total warrant liabilities of $4,485,000 and $4,925,000 as of the issuance date of July 24, 2013 and the revaluation date of December 31, 2013, respectively. During the three and nine months ended September 30, 2014, the Company recorded a net change in fair value of warrant liability gain of $0 and $1,894,000, respectively, in the condensed consolidated statements of operations prior to the 2014 Warrant Exchange Transaction in the second quarter of 2014 and for the quarterly revaluation at March 31, 2014. See the *2014 Warrant Exchange Agreements* - discussed below.

Series A and B Warrant Exercises - There were no warrant exercises during the three and nine months ended September 30, 2014. During the year ended December 31, 2013, the Company received net proceeds of $2,356,000 upon the exercise of 16,754,822 of the Series B Warrants issued in July 2013 for 16,754,822 additional Units, but prior to the expiration of the Series B Warrants on October 24, 3013. The total additional Units consisted of 16,754,822 shares of common stock and 16,754,822 Series A Warrants. Of the Series B Warrants exercised, Dr. Andrey Semechkin, the Company's Co-Chairman and Chief Executive Officer, exercised 2,754,821 Series B Warrants; and Ruslan Semechkin, the Company's Chief Scientific Officer, exercised 667,667 Series B Warrants for an aggregate price of $497,000.

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

Series B Price Adjustment - The Series B Warrants were subject to an exercise price adjustment on the 60th trading day following issuance in July 2013. On October 17, 2013, the adjustment date, the adjusted exercise price was calculated at a 20% discount to the closing bid price on the adjustment date. The closing bid price on the adjustment date was $0.1815 per share, which resulted in an adjusted exercise price of $0.1452 per Unit. This adjusted exercise price was retroactively applied to all exercises from the period of October 10th through to the expiration date of October 24th. Of the 16,754,822 Series B Warrants exercised during the year ended December 31, 2013, there were 12,304,822 subject to the adjusted exercise price of $0.1452 per Unit for net proceeds of

approximately $1,722,000. The remaining 4,450,000 were exercised prior to the adjustment date at $0.15 per Unit for net proceeds of approximately $634,000.

Expiration of Series B Warrants - On October 24, 2013, the remaining 3,245,178 Series B Warrants expired unexercised.

2014 Warrant Exchange Agreements – On June 11, 2014, the Company entered into a series of warrant exchange agreements (the "Warrant Exchange Agreements") with the holders of its Series A Warrants and Placement Agent Warrants that were issued by the Company pursuant to the 2013 S-1 July Registered Offering. Under the Warrant Exchange Agreements, the Company agreed to issue a total of 44,665,783 shares of common stock (the "Exchange Shares") to the warrant holders in exchange for the cancellation of the Series A Warrants to purchase 36,554,822 shares of common stock and the Placement Agent Warrants to purchase 666,666 shares of common stock and Series A Warrants. Dr. Andrey Semechkin and Dr. Ruslan Semechkin, the Company's Co-Chairman and Chief Executive Officer and Chief Scientific Officer and director, respectively, participated on the same terms as the other warrant holders, agreeing to exchange Series A Warrants to purchase 10,088,154 shares of common stock for 12,105,784 shares of common stock. The closing of the transaction occurred on June 16, 2014 with the issuance of the Exchange Shares.

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

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

As of September 30, 2014 and December 31, 2013, there were 0 and 36,554,822 Series A Warrants and 0 and 666,666 Placement Agent Warrants outstanding, respectively, which the Company had reserved 0 and 37,888,154 shares of common stock for future issuance, respectively.

Warrants Issued with Other Financings

During 2007 and 2008, the Company entered into various agreements to borrow working capital and as part of these agreements, the Company issued warrants to the holders to purchase common stock. The Company issued 1,400,000 warrants to YKA Partners, an affiliated company of its former Co-Chairman of the Board with an exercise price of $0.25 per share, all of which expired unexercised in August 2013.

Warrants Issued in Connection with SkinCare Marketing Agreement

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, with a third party marketing organization. According to the terms of the agreement as described in Note 10 below, Commitments and Contingencies, under Marketing Arrangement and Agreement, the third party marketing organization would provide assistance to LSC to sell its skin care products through various specific proprietary mailings. The agreement provides for two tranches of common stock warrants issued by the Company for the benefit of the third party marketing organization for 100,000 shares each, with strike prices of $1.50 and $2.00, respectively, vesting over four quarters, and a warrant term of five years. As of September 30, 2014 and December 31, 2013, there were 200,000 warrants outstanding. These warrants expire in September 2016.

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

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

10. Commitments and Contingencies

Leases

The Company has established its primary research facility in 8,215 square feet of leased office and laboratory space in Oceanside, California. The lease for this facility expires in August 2016. The current base rent is $8,846 per month. The facility has leasehold improvements which include cGMP (current Good Manufacturing Practices) level clean rooms designed for the derivation of clinical-grade stem cells and their differentiated derivatives, research laboratories for the Company's stem cell differentiation studies and segregated rooms for biohazard control and containment of human donor tissue. The monthly base rent will increase by 3% annually on the anniversary date of the agreement.

The Company leases a 5,520 square foot manufacturing facility in Frederick, Maryland, which is used for laboratory and administrative purposes. The current base rent is $11,105. The initial term of the lease expires in December 2015 and there is an option for an additional five years. The laboratory is being used to develop and manufacture the Company's research products and the administration facility is used for sales and marketing and general administrative purposes. The manufacturing laboratory space has clean rooms and is fitted with the necessary water purification, refrigeration, labeling equipment and standard manufacturing equipment to manufacture, package, store, and distribute media products.

On February 25, 2011, the Company entered into a lease agreement (the "Lease Agreement") with S Real Estate Holdings LLC to allow the Company to expand into new corporate offices located at 5950 Priestly Drive, Carlsbad, California. The building is used for administrative purposes, but could also be used for research and development purposes if such space is needed in the future. The lease initially covered approximately 4,653 square feet, starting on March 1, 2011, and was amended to cover approximately 8,199 square feet effective July 1, 2011, and to cover approximately 9,848 square feet effective January 1, 2013. The lease expires on February 29, 2016, subject to the Company's right to extend the term for up to five additional years. The Company began paying rent at an initial rate of $5,118 per month and the rate was amended effective July 1, 2011 and January 1, 2013 to account for additional square footage occupied by the Company. The current base rent is $11,837 per month. The monthly base rent will increase by 3% annually on the anniversary date of the agreement. The Company is also obligated to pay a portion of the utilities for the building and increases in property tax and insurance.

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

The Company incurred rent expense of $79,000 and $77,000 for the three months ended September 30, 2014 and 2013, respectively. For the nine months ended September 30, 2014 and 2013, the Company incurred rent expense of $236,000 and $235,000, respectively.

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

	Amount
2014 (remaining three months)	$ 97
2015	397
2016	101
2017	3
Total	$ 598

Marketing Agreement

In September 2011, the Company signed a Marketing Agreement ("agreement") with an effective date of June 30, 2011, superseding the terms of a previous arrangement with a third party marketing organization. According to the agreement, the third party marketing organization will continue to provide assistance to Lifeline Skin Care, Inc., ("LSC") a wholly-owned subsidiary of International Stem Cell, to sell skin care products through various specific proprietary mailings. In exchange for such services, the Company will pay 20% of net revenues for Direct Sales (as defined in the agreement) generated from the proprietary mailings. In addition, the Company agreed to pay 10% of net revenues for Referral Sales. The agreement specifies that the parties do not intend to create a joint venture, and that either party may terminate the agreement upon 30-day written notice. In addition, the agreement provided for two tranches of common stock warrants issued by the Company for the benefit of the third party marketing organization for 100,000 shares each, with strike prices of $1.50 and $2.00, respectively, with vesting over four quarters, and warrant term of five years. Subsequently in July

2012, the Company renegotiated the commission structure to reflect slightly lower rates, 18% on net revenues derived from direct sales and 9% on net revenues derived from referral sales. LSC incurred $11,000 and $18,000 as commission expenses during the three months ended September 30, 2014 and 2013, respectively, under the terms of this agreement. For the nine months ended September 30, 2014 and 2013, the commission expense incurred under this agreement was $34,000 and 61,000, respectively.

Customer Concentration

During the three and nine months ended September 30, 2014 for the Biomedical market segment, one customer accounted for 22% and 21% of consolidated revenues. During the three and nine months ended September 30, 2013 for the Biomedical market segment, one customer accounted for 24% and 18% of our consolidated revenues. No other single customer accounted for more than 10% of revenues for any period presented.

11. Segments and Geographic Information

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

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

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

Lifeline Cell Technology, LLC for the Biomedical Market, which develops, manufactures and commercializes primary human cell research products including over 130 human cell culture products, including frozen human "primary" cells and the reagents (called "media") needed to grow, maintain and differentiate the cells.

Revenues, Expenses and Operating Income (loss)

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2014	2013	2014	2013
Revenues:				
Cosmeceutical market	$ 970	$ 810	$ 2,519	$ 2,169
Biomedical market	993	860	2,681	2,243
Total revenues	1,963	1,670	5,200	4,412
Operating expenses:				
Therapeutic market	2,458	1,900	7,067	6,071
Cosmeceutical market	837	787	2,410	2,129
Biomedical market	702	686	2,065	1,821
Total operating expenses	3,997	3,373	11,542	10,021
Operating income (loss):				
Therapeutic market	(2,458)	(1,900)	(7,067)	(6,071)
Cosmeceutical market	133	23	109	40
Biomedical market	291	174	616	422
Total operating income (loss)	$ (2,034)	$ (1,703)	$ (6,342)	$ (5,609)

Geographic Information

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2014	2013	2014	2013
North America	$ 1,519	$ 1,280	$ 4,186	$ 3,362
Asia	332	283	672	704
Europe	98	66	309	254
All other regions	14	41	33	92
Total	$ 1,963	$ 1,670	$ 5,200	$ 4,412

12. Subsequent Event

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

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

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

Subject to certain ownership limitations with respect to the Series H-1 Preferred Stock, the Series H Preferred Stock is convertible at any time into shares of Common Stock at an initial conversion price of $0.06447 per share. The Series H Preferred Stock is non-voting, is only entitled to dividends in the event that dividends are paid on the Common Stock, and will not have any preferences over the Common Stock, except that the Series H Preferred Stock shall have preferential liquidation rights over the Common Stock. Other than the Series H-1 Preferred Stock having a beneficial ownership limitation, the Series H-1 Preferred Stock and Series H-2 Preferred Stock are substantially identical. The conversion price of the Series H Preferred Stock is subject to certain resets as set forth in the Certificates of Designation, including the date of the amendment to the certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the Closing Date.

The Warrants are immediately exercisable and the exercise price of the Warrants is subject to certain reset adjustments as set forth in the forms of Warrant, including the date of the amendment to the Company's certificate of incorporation with respect to the reverse stock split, the effectiveness dates of the registration statements and the six and twelve month anniversaries of the date of issuance of the Warrants.

Pursuant to the terms of the Securities Purchase Agreement, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park, or otherwise enter into a variable rate transaction, until March 2016. Additionally, pursuant to the terms of the Securities Purchase Agreement, the Company may not issue any of its securities until the 90th day following the effective date of the registration statement on Form S-1 filed with SEC on November 3, 2014 in connection with registering for resale certain shares of common stock underlying securities issued in the private placement. However, the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers, directors and employees at market prices and issuing securities pursuant to the Company's equity incentive plans.

H.C. Wainwright & Co. (the "Placement Agent") acted as the exclusive placement agent for the Offering pursuant to a placement agency engagement letter, dated as of September 23, 2014, by and between the Placement Agent and the Company (the "Engagement Letter"). Upon the closing of the Offering, pursuant to the Engagement Letter, the Placement Agent received a placement agent fee of $200,000 and a warrant to purchase approximately 9.3 million shares of common stock, as well as the reimbursement of fees and expenses up to $50,000. Similar to the Series A Warrant, the placement agent warrant will have an initial exercise price of $0.0921 per share, be immediately exercisable and will terminate 5.5 years after the date of issuance.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes and other financial information included elsewhere herein. This information should also be read in conjunction with our audited historical consolidated financial statements which are included in our Form 10-K for the fiscal year ended December 31, 2013. The discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties, such as our plans, expectations and intentions. Our actual results may differ significantly from management's expectations. The factors that could affect these forward looking statements are discussed in Item 1A of Part II of this report. This discussion should not be construed to imply that the results discussed herein will necessarily continue into the future, or that any expectations expressed herein will necessarily be indicative of actual operating results in the future. Such discussion represents only the best assessment by our management.

Business Overview

We had been a development stage company from our inception through the quarter ended September 30, 2013. During the quarter ended December 31, 2013, we exited the development stage based on a consistent, increasing revenue trend and more significant revenue totals generated from our two commercial businesses. We have generated product revenues from our two commercial businesses of $5.2 million and $4.4 million for the nine months ended September 30, 2014 and 2013, respectively. We currently have no revenue generated from our principal operations in therapeutic and clinical product development.

Our products are based on multi-decade experience with human cell culture and a proprietary type of pluripotent stem cells, human parthenogenetic stem cells ("hpSCs"). Our hpSCs are comparable to human embryonic stem cells ("hESCs") in that they have the potential to be differentiated into many different cells in the human body. However, the derivation of hpSCs does not require the use of fertilized eggs or the destruction of viable human embryos and also offers the potential for the creation of immune-matched cells and tissues that are less likely to be rejected following transplantation. ISCO's collection of hpSCs, known as UniStemCell™, currently consists of fifteen stem cell lines. We have facilities and manufacturing protocols that comply with the requirements of Good Manufacturing Practice (GMP) standards as promulgated by the U.S. Code of Federal Regulations and enforced by the U.S. Food and Drug Administration ("FDA").

Market Opportunity and Growth Strategy

Therapeutic Market – Clinical Applications of hpSCs for Disease Treatments. With respect to therapeutic research and product candidates, we focus on applications where cell and tissue therapy is already proven but where there is an insufficient supply of safe and functional cells or tissue. We believe that the most promising potential clinical applications of our technology are: 1) Parkinson's disease ("PD"); 2) metabolic/liver diseases; and 3) corneal blindness. Using our proprietary technologies and know-how, we are creating neural stem cells from hpSCs as a potential treatment of PD, liver cells from hpSCs that may be able to treat a variety of hepatic and metabolic liver diseases and corneal like structures from hpSCs that may be suitable for cornea transplantation and corneal healing in humans.

Cosmeceutical Market – Skin Care Products. Our wholly-owned subsidiary Lifeline Skin Care, Inc. ("LSC") develops, manufactures and markets cosmetic skin care products using an extract derived from our pluripotent stem cells. These proprietary products include a Defensive Day Serum, Recovery Night Serum and Firming Eye Complex, all of which include our patented stem cell extract. LSC's products are regulated as cosmetics. LSC's products are sold nationally and internationally through a branded website, through professional channels (including dermatologists, plastic surgeons, medical, day and resort spas) and distributors. Domestically, we plan to increase distribution of our products by increasing brand awareness and resonance through advertising, sales promotion and public relations. Internationally, we are increasing distribution and sales through agreements with specialty distributors in both Latin America and Asia.

Biomedical Market – Primary Human Cell Research Products. Our wholly-owned subsidiary Lifeline Cell Technology, LLC ("LCT") develops, manufactures and commercializes over 130 human cell culture products, including frozen human "primary" cells and the reagents (called "media") needed to grow, maintain and differentiate the cells, in order to address this significant market opportunity. LCT's scientists have used a technology called basal medium optimization to systematically produce optimized products designed to culture specific human cell types and to elicit specific cellular behaviors. These techniques also produce products that do not contain non-human animal proteins, a feature desirable to the research and therapeutic markets. Each LCT cell product is quality tested for the expression of specific markers (to assure the cells are the correct type), proliferation rate, viability, morphology and absence of pathogens. Each cell system also contains associated donor information and all informed consent requirements are strictly followed. LCT's research products are marketed and sold by its internal sales force, OEM partners and LCT brand distributors in Europe and Asia.

Organizational History

We were originally incorporated in Delaware on June 7, 2005 as BTHC III, Inc. to effect the reincorporation of BTHC III, LLC, a Texas limited liability company, mandated by a plan of reorganization. On December 28, 2006 pursuant to a Share Exchange

Agreement, BTHC III, Inc. issued 33,156,502 shares of common stock, representing approximately 93.7% of the common stock outstanding immediately after the transaction, to the shareholders of International Stem Cell Corporation, a California corporation ("ISC California"), in exchange for all outstanding stock of ISC California. This transaction is being accounted for as a "reverse merger" for accounting purposes.

ISC California was incorporated in California in June 2006 for the purpose of restructuring the business of LCT, which was organized in California in August 2001. As a result of the restructuring, LCT became wholly-owned by ISC California, which in turn is wholly-owned by us. LSC was formed in the State of California on June 5, 2009 and is a wholly-owned subsidiary of ISC California.

Results of Operations

Revenues

Revenue for the three months ended September 30, 2014, totaled $1.96 million, compared to $1.67 million for the three months ended September 30, 2013. LCT contributed $993,000 or 51% of total revenue for the three months ended September 30, 2014, compared to $860,000 or 51% for the three months ended September 30, 2013. The increase of $133,000 or 16% in LCT's revenue for 2014 was driven primarily by higher sales to OEM customers and international distributors. LSC's revenue of $970,000 for the three months ended September 30, 2014 accounted for 49% of total revenue, compared to $810,000 or 49% of total revenue for the three months ended September 30, 2013. The increase of $160,000 or 20% in LSC's revenue is due to our strategic efforts to expand and diversify sources of revenue across all sales/distribution channels. We saw the greatest sales growth in website sales and professional accounts.

For the nine months ended September 30, 2014 and 2013, revenue was $5.20 million and $4.41 million, respectively. LCT contributed $2.68 million or 52% of total revenue in the nine months ended September 30, 2014, compared to $2.24 million or 51% of total revenue for the nine months ended September 30, 2013. LCT's revenue increased by $438,000 or 20%, primarily due to higher sales to OEM customers and international distributors. LSC's revenue of $2.50 million or 48% of total revenue in the nine months ended September 30, 2014, compared to $2.17 million or 49% of total revenue in the nine months ended September 30, 2013. The increase of $350,000 or 16% in LSC's revenue was a result of our strategic efforts to expand and diversify our sources of revenue, as well as robust growth in our professional channel sales.

Cost of sales

Cost of sales for the three months ended September 30, 2014 was $518,000 or 26% of revenue, compared to $447,000 or 27% of revenue for the three months ended September 30, 2013. While our overall cost of sales as a percentage of revenue stayed relatively stable, LCT's cost of sales decreased approximately 5% and LSC's cost of sales increased approximately 5% as a percentage of sales. LCT's cost of sales for the three months ended September 30, 2014 was $357,000 or 36% of sales, compared to $353,000 or 41% of sales for the three months ended September 30, 2013. The decrease in cost of sales percentage for LCT is primarily due to a more favorable sales mix as well as efficiency gains in our operations for the three months ended September 30, 2014, compared to the corresponding period in 2013. LSC's cost of sales was $161,000 or 16% of sales for the three months ended September 30, 2014, compared to $93,000 or 11% of sales for the three months ended September 30, 2013. The increase in cost of sales for LSC is primarily attributable to a shift in our sales mix to a lower portion of our sales recorded from ecommerce compared to other sales channels.

Cost of sales for the nine months ended September 30, 2014 was $1.37 million or 26% of revenue, compared to $1,110,000 or 25% of revenue for the same period in 2013. The slight increase in cost of sales as a percentage of revenue is partially attributable to a 1% decrease in costs for LCT and a 2% increase in costs for LSC. LCT's cost of sales for the nine months ended September 30, 2014 was $1.03 million or 38% of sales, compared to $877,000 or 39% of sales for the nine months ended September 30, 2013. The decrease in cost of sales for LCT is primarily due to a more favorable sales mix as well as efficiency gains in our operations for the nine months ended September 30, 2014, compared to the corresponding period in 2013. LSC's cost of sales was $334,000 or 13% of sales for the nine months ended September 30, 2014, compared to $233,000 or 11% of sales for the nine months ended September 30, 2013. The increase in the cost of sales for LSC is primarily due to a shift in our sales mix to a lower portion of our sales recorded from ecommerce compared to other sales channels.

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

Research and Development ("R&D")

Research and development expenses were $1.39 million for the three months ended September 30, 2014, compared to $932,000 for the same period in 2013. The increase of $460,000 or 49% is primarily due to increased stem cell line research and preclinical testing expenses of $625,000, partially offset by lower employee-related spending of $29,000, consulting costs of $63,000, tissue donation costs of $67,000 and stock-based compensation expense of $16,000.

Research and development expenses for the nine months ended, September 30, 2014 were $3.76 million, compared to $2.63 million for the same period in 2013. The increase of $1.13 million or 43% was primarily due to higher stem cell line research and preclinical

testing expenses of $1.44 million, partially offset by lower employee-related spending of $80,000, consulting costs of $102,000, tissue donation costs of $91,000, and stock-based compensation expense of $50,000.

R&D is primarily focused on the development of treatments for Parkinson's disease (PD), metabolic liver diseases (such as Crigler-Najjar syndrome, (CNS) and Alpha 1-antitrypsin deficiency (A1AD)), diseases of the eye and the creation of new cGMP grade human parthenogenetic stem cell lines. These projects are long-term investments that involve developing both new stem cell lines and new differentiation techniques that can provide higher purity populations of functional cells. We do not expect these projects to provide near-term revenue, although we have published milestones including the release of preclinical rodent and non-human primate (NHP) PD study data in the first quarter of 2013. Building on the NHP PD pilot study, in May 2013 we initiated a large-scale pharmacology/toxicology primate study, which is intended to form a critical component of our regulatory submission that we anticipate filing in late 2014 or early 2015. We anticipate increased R&D expenditures in 2014 and 2015 as a result of this large-scale primate study and the added costs associated with the preparation of the regulatory submission.

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

Selling and Marketing Expense

Selling and marketing expenses for the three months ended September 30, 2014 were $745,000, compared to $632,000 in the three months ended September 30, 2013. The increase of $113,000 or 18% was primarily due to higher employee-related spending of $50,000, consulting and creative expenses of $59,000, logistics expense of $8,000, and website support of $19,000. Commission expense increased $62,000 as a result of higher sales. The increase was partially offset by a reduction of $78,000 in advertising expense and $29,000 is industry public relations expense.

Selling and marketing expenses for the nine months ended September 30, 2014 were $2.09 million, compared to $1.82 million in the nine months ended September 30, 2013. The increase of $269,000 or 15% was primarily due to higher employee-related spending of $117,000, consulting and creative expenses of $142,000, stock-based compensation for services provided of $11,000, expenses for marketing materials, samples and printing of $106,000, logistics costs of $13,000, and trade show costs of $17,000. Commission expense increased $105,000 as a result of higher sales. The increase was partially offset by a reduction of $220,000 in advertising expense, investor relations of $51,000, and website support of $24,000.

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

General and Administrative Expenses

General and administrative expenses for the three months ended September 30, 2014 were $1.34 million, reflecting a decrease of $20,000 or 1%, compared to $1.36 million for the same period in 2013. The decrease is primarily attributable to decreases in investor relations related costs of $54,000, consulting expense of $23,000, temporary service fees of $36,000, patent impairment expense of $11,000, and licenses and permits expense of $11,000. The decreases were partially offset by increases in stock-based compensation expense of $47,000, employee related spending of $26,000, filing fees of $6,000, computer service and supplies expenses of $6,000, insurance related costs of $7,000, rent and building maintenance expenses of $8,000, and legal fees of $16,000.

General and administrative expenses for the nine months ended September 30, 2014 were $4.32 million, reflecting a decrease of $138,000 or 3%, compared to $4.46 million for the same period in 2013. The decrease is primarily attributable to decreases in employee-related spending of $126,000, stock-based compensation expense of $79,000, temporary service costs of $55,000, stock-based compensation for services provided by consultants of $52,000, consulting fees of $31,000, board of director fees of $24,000, filing fees of $18,000, and uncollectible write offs of $22,000. The decreases were partially offset by increases in audit and accounting related fees of $44,000, annual meeting related costs of $26,000, computer service and supplies expenses of $16,000, insurance related costs of $14,000, rent and building maintenance expenses of $19,000, and investor relations related costs of $167,000.

Other Income/Expense

Other expense was $0 for the three months ended September 30, 2014 due to recognizing a loss of $8,000 on a fixed asset disposal, offset by $8,000 of sublease income. In 2013, we recorded other expense of $2.1 million during the corresponding period primarily due to recognizing the fair value of $1.39 million for the warrant liability in excess of the investment proceeds received from our stock offering completed in July 2013, plus the associated financing costs of $738,000.

Other expense for the nine months ended September 30, 2014 was $1.54 million, due to recognizing loss of $3.45 million for the warrant exchange inducement expense offset by the income of $1.89 million for the change in fair value of the warrant liability from our registered stock and warrant offering completed in July 2013, due to the subsequent revaluation of the warrant liability at each balance sheet date and the final revaluation prior to the completion of the exchange of the warrants for our common stock. We recorded other expense of $2.1 million during the nine months ended September 30, 2013 primarily due to recognizing the fair value of $1.39 million for the warrant liability in excess of the investment proceeds received from our stock offering completed in July 2013, plus the associated financing costs of $738,000.

Liquidity and Capital Resources

As of September 30, 2014, our cash and cash equivalents totaled $471,000, compared to $2.24 million as of December 31, 2013. At September 30, 2014, we had a working capital balance of $607,000, compared to a $2.40 million deficit as of December 31, 2013. The positive change in our working capital from a deficit at December 31, 2013 is primarily due to removal of the fair value of warrant liability from our balance sheet as of the end of the second quarter in 2014 resulting from the exchange of warrants for common stock.

Operating Cash Flows

Net cash used in operating activities was $4.45 million for the nine months ended September 30, 2014, compared to $4.23 million for the corresponding period in 2013. The primary factor contributing to the variability in the reported cash flow amounts relates to the net loss after non-cash adjustments totaling $4.55 million in the nine months ended September 30, 2014, compared to $3.68 million for the same period in 2013.

Investing Cash Flows

Net cash used in investing activities was $746,000 for the nine months ended September 30, 2014, compared to $514,000 in the same period in 2013. The increase was the result of higher payments for capital expenditure of $228,000, and higher patent licenses and trademarks spending of $5,000.

Financing Cash Flows

Net cash provided by financing activities was $3.43 million for the nine months ended September 30, 2014, compared to $5.89 million in the same period in 2013. Approximately $1.42 million of the net proceeds of $3.43 million received in 2014 was attributable to the issuance of 8.2 million shares of common stock, net of stock issuance costs of $169,000 under the purchase agreement with Lincoln Park Capital, LLC ("Lincoln Park"), which we entered into in December 2013. In addition, we received net proceeds of $2.1 million from the sale of 19.3 million shares to Dr. Andrey Semechkin, our Co-Chairman and Chief Executive Officer and Dr. Ruslan Semechkin our Chief Scientific Officer and a director. The shares were offered and sold to the purchasers in private placement transactions.

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

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

- the accuracy of the assumptions underlying our estimates for capital needs in 2014 and beyond;
- the extent that revenues from sales of LSC and LCT products cover the related costs and provide capital;
- scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs and our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our progress with preclinical development and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the number and type of product candidates that we pursue.

Additional financing through strategic collaborations, public or private equity financings or other financing sources may not be available on acceptable terms, or at all. Additional equity financing could result in significant dilution to our stockholders. Additional debt financing may be expensive and require us to pledge all or a substantial portion of our assets. Further, if additional funds are obtained through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our

technologies, product candidates or products that we would otherwise seek to develop and commercialize on our own. If sufficient capital is not available, we may be required to delay, reduce the scope of or eliminate one or more of our product initiatives.

During the quarter ended December 31, 2013, we exited the development stage based on a consistent, increasing revenue trend and more significant revenue totals generated from our two commercial businesses. We had been in the development stage from inception through the quarter ended September 30, 2013, and have accumulated losses from inception through the quarter ended September 30, 2014, and expect to incur additional losses in the near future. We currently have no revenue generated from our principal operations in therapeutic and clinical product development through research and development efforts. We need to raise additional working capital. The timing and degree of any future capital requirements will depend on many factors. For the quarter ended September 30, 2014, our average burn rate was approximately $495,000 per month, excluding capital expenditures and patent costs averaging $83,000 per month. There can be no assurance that we will be successful in maintaining our normal operating cash flow and that the timing of our capital expenditures will result in cash flow sufficient to sustain our operations through 2014. As part of the June 2014 warrant exchange transaction discussed above, we agreed that until September 14, 2014 we would not issue additional shares in capital raising transactions other than in private placements to our officers and directors. Additionally, pursuant to the terms of the Securities Purchase Agreement entered into in connection with the private placement discussed below, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park, or otherwise enter into a variable rate transaction, until March 2016. Additionally, pursuant to the terms of the Securities Purchase Agreement, the Company may not issue any of its securities until the 90th day following the effective date of the registration statement on Form S-1 filed with the SEC on November 3, 2014 in connection with registering for resale certain shares of common stock underlying securities issued in the private placement. However, the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers, directors and employees at market prices and issuing securities pursuant to the Company's equity incentive plans.

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

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

On October 14, 2014, in a private placement, we sold a total of (i) 2,500 shares of Series H Convertible Preferred Stock convertible into 38,777,726 shares of common stock at an initial conversion price of $0.06447 (ii) Series A warrants (the "Series A Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.0921 per share exercisable immediately and which have a term of 5.5 years, (iii) Series B warrants (the "Series B Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.06447 per share exercisable immediately and which have a term of 6 months, (iv) Series C warrants (the "Series C Warrants", together with the Series A Warrants, the Series B Warrants, collectively, the "Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.06447 per share exercisable immediately and which have a term of 12 months for an aggregate initial gross purchase price of $2.5 million, as discussed in Note 12, Subsequent Event, to our condensed consolidated financial statements.

Off-Balance Sheet Arrangements
As of September 30, 2014, we did not have any off-balance sheet arrangements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not required.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures

Under the supervision and with the participation of our management, including our chief executive officer and our chief financial officer, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Based on that evaluation, our chief executive officer and our chief financial officer have concluded that, at September 30, 2014, our disclosure controls and procedures were effective.

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time

periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to our management, including our chief executive officer and chief financial officer, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Changes in internal control over financial reporting

Under the supervision and with the participation of our management, including our chief executive officer and our chief financial officer, we carried out an evaluation of any potential changes in our internal control over financial reporting during the fiscal quarter covered by this quarterly report on Form 10-Q.

There were no changes in our internal control over financial reporting during the quarter ended September 30, 2014 that our certifying officers concluded materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

We have provided updated risk factors below. The risk factors set forth below with an asterisk (*) following the title are new risk factors or risk factors that contain material changes from the risk factors previously disclosed in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2013, as filed with the SEC. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected, and the value of our common stock could decline.

Risks Related to Our Business

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

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

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

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

We have expended substantial funds to develop our technologies, products and product candidates. Based on our financial condition, recurring losses and projected spending, which raise substantial doubts about our ability to continue as a going concern, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements as of and for the year ended December 31, 2013 regarding this uncertainty. The inclusion of the going concern statement by our auditors may adversely affect our stock price and our ability to raise needed capital or enter into advantageous contractual relationships with third parties. If we were unable to continue as a going concern, the values we receive for our assets on liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

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

During the nine months ended September 30, 2014, we used a significant amount of cash to finance the continued development and testing of our product candidates, and we need to obtain significant additional capital resources in order to develop products going forward. Our burn rate as of the third quarter ended September 30, 2014 was approximately $495,000 per month excluding capital expenditures and patent costs averaging $83,000 per month. We may not be successful in maintaining our normal operating cash flow and the timing of our capital expenditures may not result in cash flows sufficient to sustain our operations through the next twelve months. If financing is not sufficient and additional financing is not available or available only on terms that are detrimental to our long-term survival, it could have a major adverse effect on our ability to continue to function. The timing and degree of any future capital requirements will depend on many factors, including:

- the accuracy of the assumptions underlying our estimates for capital needs in 2014 and beyond;
- scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs and our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our progress with preclinical development and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the number and type of product candidates that we pursue.

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

After March 2016 and through January 2017, we may direct Lincoln Park Capital Fund, LLC ("Lincoln Park") to purchase up to $10.25 million worth of shares of our common stock under our Purchase Agreement with them, generally in amounts up to 200,000 shares of our common stock on any such business day. However, Lincoln Park shall not purchase any shares of our common stock on any business day that the closing sale price of our common stock is less than $0.05 per share, subject to adjustment as set forth in the Purchase Agreement. From commencement through October 14, 2014, we have sold a total of approximately 9.9 million shares of common stock for an aggregate of approximately $1.8 million.
The extent we rely on Lincoln Park as a source of funding will depend on a number of factors, including the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. Until March 2016, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we sell all of the $10.25 million of common stock under the Purchase Agreement to Lincoln Park, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects. As discussed below, pursuant to the terms of a securities purchase agreement entered into with investors in connection with a private placement effected October 14, 2014, the Company may not effect sales to Lincoln Park pursuant to the Purchase Agreement with Lincoln Park until March 2016.

On October 14, 2014, we effected a private placement pursuant to which we sold a total of (i) 2,500 shares of Series H Convertible Preferred Stock convertible into 38,777,726 shares of common stock at an initial conversion price of $0.06447 (ii) Series A warrants (the "Series A Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.0921 per share exercisable immediately and which have a term of 5.5 years, (iii) Series B warrants (the "Series B Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.06447 per share exercisable immediately and which have a term of 6 months, (iv) Series C warrants (the "Series C Warrants", together with the Series A Warrants, the Series B Warrants, collectively, the "Warrants") to purchase up to 38,777,726 shares of common stock for an initial exercise price of $0.06447 per share exercisable immediately and which have a term of 12 months for an aggregate initial gross purchase price of $2.5 million. Pursuant to the terms of the Securities Purchase Agreement, the Company may not sell shares to Lincoln Park under the Purchase Agreement with Lincoln Park, or otherwise enter into a variable rate transaction, until March 2016. Additionally, pursuant to the terms of the Securities Purchase Agreement, the Company may not issue any of its securities until the 90th day following the effective date of the registration statement on Form S-1 filed with the SEC on November 3, 2014 in connection with registering for resale certain shares of common stock underlying securities issued in the private placement and therefore, will not be able to take advantage of any financing

opportunities until after such time, which may have an adverse effect on the Company if advantageous opportunities or market conditions arise. However, the Company may still issue securities in certain circumstances, including issuing shares in private placements to its officers, directors and employees at market prices and issuing securities pursuant to the Company's equity incentive plans. See Note 12, Subsequent Event, to our condensed consolidated financial statements.

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

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

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

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

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

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

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

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

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

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

Our cell therapy development programs face, and will continue to face, intense competition from pharmaceutical, biopharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies engaged in drug

discovery activities or funding, both in the United States and abroad. Some of these competitors are pursuing the development of drugs and other therapies that target the same diseases and conditions that we are targeting with our product candidates.

As a general matter, we also face competition from many companies that are researching and developing cell therapies. Many of these companies have financial and other resources substantially greater than ours. In addition, many of these competitors have significantly greater experience in testing pharmaceutical and other therapeutic products, obtaining FDA and other regulatory approvals, and marketing and selling. If we ultimately obtain regulatory approval for any of our product candidates, we also will be competing with respect to manufacturing efficiency and marketing capabilities, areas in which we have limited or no commercial-scale experience. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated by our competitors. Competition may increase further as a result of advances made in the commercial applicability of our technologies and greater availability of capital for investment in these fields.

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

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

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

We estimate that governmental funding, either directly or indirectly (through sponsorship of academic research), comprises approximately 40% of the market for basic and applied research in biological sciences, which is the target market for our primary human cell research products. The U.S. Government is considering significant changes in government spending and other governmental programs, with several automatic spending cuts being implemented. There are many variables in how these laws could be implemented that make it difficult to determine specific impacts on our customers, and we are unable to predict the impact that these automatic spending cuts would have on funding our customers receive. Additionally, U.S. Governmental programs are subject to annual congressional budget authorization and appropriation processes. However, whether through the automatic cuts or other decisions, long-term funding for certain programs in which our research product customers participate may be reduced, delayed or cancelled. In the event that governmental funding for any of our research product customers is reduced or delayed, our sales to those customers would likely suffer, which could have a material adverse effect on our results of operations.

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

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

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

The process of obtaining FDA and other regulatory approvals is expensive, generally takes many years and is subject to numerous risks and uncertainties, particularly with complex and/or novel product candidates such as our product candidates. Changes in regulatory approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application or may make it easier for our competitors to gain regulatory approval to enter the marketplace. Ultimately, the FDA and other regulatory agencies have substantial discretion in the approval process and may refuse to accept any application or may decide that our product candidate data are insufficient for approval without the submission of additional preclinical, clinical or other studies. In addition, varying agency interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Any regulatory approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

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

- the product candidates require significant clinical testing to demonstrate safety and effectiveness before applications for marketing approval can be filed with the FDA and other regulatory authorities;

— data obtained from preclinical and nonclinical animal testing and clinical trials can be interpreted in different ways, and regulatory authorities may not agree with our respective interpretations or may require us to conduct additional testing;

— negative or inconclusive results or the occurrence of serious or unexpected adverse events during a clinical trial could cause us to delay or terminate development efforts for a product candidate; and/or

— FDA and other regulatory authorities may require expansion of the size and scope of the clinical trials.

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

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

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

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

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

Although we seek to conduct our business in compliance with applicable governmental healthcare laws and regulations, these laws and regulations are exceedingly complex and often subject to varying interpretations. The cell therapy industry is the topic of significant government interest, and thus the laws and regulations applicable to our business are subject to frequent change and/or reinterpretation. As such, there can be no assurance that we will be able, or will have the resources, to maintain compliance with all such healthcare laws and regulations. Failure to comply with such healthcare laws and regulations, as well as the costs associated with such compliance or with enforcement of such healthcare laws and regulations, may have a material adverse effect on our operations or may require restructuring of our operations or impair our ability to operate profitably.

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

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

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

— warning letters or other actions requiring changes in product manufacturing processes or restrictions on product marketing or distribution;

— product recalls or seizures or the temporary or permanent withdrawal of a product from the market; and

— fines, restitution or disgorgement of profits or revenue, the imposition of civil penalties or criminal prosecution.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

complete and/or commercialize our proposed products. We may not be able to acquire any such licenses on a commercially-viable basis.

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

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

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

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

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

Our strategy for the development, clinical testing and commercialization of our proposed products requires that we enter into collaborations with corporate partners, licensors, licensees and others. We are dependent upon the subsequent success of these other parties in performing their respective responsibilities and the continued cooperation of our partners. Our collaborators may not cooperate with us or perform their obligations under our agreements with them. We cannot control the amount and timing of our collaborators' resources that will be devoted to our research and development activities related to our collaborative agreements with them. Our collaborators may choose to pursue existing or alternative technologies in preference to those being developed in collaboration with us.

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

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

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

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

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

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

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

activities. These research facilities may have commitments to other commercial and non-commercial entities. We have limited control over the operations of these laboratories and can expect only limited amounts of time to be dedicated to our research goals.

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

Our business may bring us into conflict with our licensees, licensors or others with whom we have contractual or other business relationships, or with our competitors or others whose interests differ from ours. If we are unable to resolve those conflicts on terms that are satisfactory to all parties, we may become involved in litigation brought by or against us. That litigation is likely to be expensive and may require a significant amount of management's time and attention, at the expense of other aspects of our business. The outcome of litigation is always uncertain, and in some cases could include judgments against us that require us to pay damages, enjoin us from certain activities, or otherwise affect our legal or contractual rights, which could have a significant adverse effect on our business.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

During the three and nine months ended September 30, 2014, we derived approximately 22% and 21%, respectively, of our revenues from one customer.*

During the three and nine months ended September 30, 2014, one customer accounted for 22% and 21%, respectively, of our consolidated revenues. To the extent that this significant customer reduces or delays its purchases from us or terminates its relationship with us, our revenues would decline significantly and our financial condition and results of operations would suffer substantially.

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

Because of the specialized nature of our business, we are highly dependent on our ability to identify, hire, train and retain highly qualified scientific and technical personnel for the research and development activities we conduct or sponsor. The loss of one or more key executive officers, or scientific officers, would be significantly detrimental to us. In addition, recruiting and retaining qualified scientific personnel to perform research and development work is critical to our success. Our anticipated growth and expansion into areas and activities requiring additional expertise, such as clinical testing, regulatory compliance, manufacturing and marketing, will require the addition of new management personnel and the development of additional expertise by existing management personnel. There is intense competition for qualified personnel in the areas of our present and planned activities. Accordingly, we may not be able to continue to attract and retain the qualified personnel, which would adversely affect the development of our business.

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

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

Risks Related to the Securities Markets and Our Capital Structure

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

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

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

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

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

As of October 31, 2014, Dr. Andrey Semechkin, Chief Executive Officer and Co-Chairman of the Board of Directors, and Dr. Ruslan Semechkin, Chief Scientific Officer of International Stem Cell and a director, beneficially own approximately 54.75% of our outstanding shares of common stock, including shares issuable upon conversion of all the outstanding shares of our Series D, Series G and Series H-2 Preferred Stock and shares issuable upon exercise of options and warrants. As a result of their holdings and the rights, preferences and privileges of those series of preferred stock, Dr. Andrey Semechkin and Dr. Ruslan Semechkin may appoint and remove two of our five directors, and propose candidates for nomination of up to two additional directors, and therefore will be able to significantly influence the election of our Board of Directors. They may also prevent corporate transactions (such as a merger, consolidation, a sale of all or substantially all of our assets or a financing transaction) that may be favorable from the standpoint of our other stockholders or they may cause a transaction that our other stockholders may view as unfavorable.

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

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

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

Under the authority granted by our Certificate of Incorporation, our Board of Directors has established five separate series of outstanding preferred stock, including Series B, Series D, Series G, Series H-1 and Series H-2 Preferred Stock, which have various rights and preferences senior to the shares of common stock. Shares of our existing preferred stock are also entitled to enhanced voting rights (other than the Series H Preferred Stock) and liquidation preferences. As a result of the various voting rights, the holders of our existing preferred stock may be able to block the proposed approval of various corporate actions, which could prevent us from achieving strategic or other goals dependent on such actions. As a result of the liquidation preferences, in the event that we voluntarily or involuntary liquidate, dissolve or windup our affairs (including as a result of a merger), the holders of our preferred stock would be entitled to receive stated amounts per share, including any accrued and unpaid dividends, before any distribution of assets or merger

consideration is made to holders of our common stock. Additionally, these shares of preferred stock may be converted, at the option of the holders, into common stock at rates that may be adjusted, for the benefit of holders of preferred stock, if we sell equity securities below the then existing conversion prices. Any such adjustments would compound the potential dilution suffered by holders of common stock if we issue additional securities at prices below the current conversion prices (ranging from $0.0667 to $0.2498 per share as of October 31, 2014). Additionally, subject to the consent of the holders of our existing preferred stock, our Board of Directors has the power to issue additional series of preferred stock and to designate, as it deems appropriate (subject to the rights of the holders of the current series of preferred stock), the special dividend, liquidation or voting rights of the shares of those additional series. The creation and designation of any new series of preferred stock could adversely affect the voting power, dividend, liquidation and other rights of holders of our common stock and, possibly, any other class or series of stock that is then in existence.

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

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

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

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

Shares eligible for future sale may adversely affect the market.

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

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

Our Certificate of Incorporation authorizes the Board of Directors to issue up to 20,000,000 shares of preferred stock and our Board of Directors has created and issued shares of five series of preferred stock that remain outstanding, including Series B, Series D, Series G, Series H-1 and Series H-2 Preferred Stock. The terms of the Series B, Series D and Series G Preferred Stock include voting rights on particular matters (for example, with respect to the Series D Preferred Stock, restricting our ability to undergo a change in control or merge with, or sell assets to, a third party), and terms of the Series B, Series D, Series G and Series H Preferred Stock include, among other things, preferences as to dividends and liquidation, and conversion rights. These preferred stock rights diminish the rights of holders of our common stock, and therefore could reduce the value of such common stock. In addition, as long as shares of our Series B, Series D, Series G and Series H Preferred Stock remain outstanding, or if our Board creates and issues additional shares of

preferred stock in the future with rights that restrict our ability to merge with, or sell assets to, a third party, it could make it more difficult, delay, discourage, prevent or make it more costly to acquire the Company or affect a change-in-control.

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

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

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

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

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

In the past, we have issued options and warrants to acquire shares of our common stock. At October 15, 2014, there were 133,402,332, warrants, for which we have reserved 133,402,332 shares of common stock, and 20,741,094 vested and 6,191,899 non-vested stock options outstanding, and we may issue additional options, warrants and other types of equity in the future as part of stock-based compensation, capital raising transactions, technology licenses, financings, strategic licenses or other strategic transactions. To the extent these options and warrants are ultimately exercised, existing common stockholders would experience additional dilution which may cause the price of our common stock to decline.

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

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

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

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

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

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

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

During the three months ended September 30, 2014, the Company sold 10,444,445 shares of common stock to the Company's Chief Executive Officer and Co-Chairman of the Board of Directors, Dr. Andrey Semechkin, and Dr. Ruslan Semechkin, Chief Scientific Officer and a director, for an aggregate of $1,000,000.

Additionally, during the three months ended September 30, 2014, the Company sold 90,000 shares of common stock to three of the Company's executive officers for an aggregate purchase price of $9,000. The shares of common stock were sold to accredited investors in private placement transactions made in reliance upon exemptions from registration pursuant to Section 4(a)(2) of the Securities Act and Regulation D promulgated thereunder.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit	Description
3.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.4 of the Registrant's Form 10-SB filed on April 4, 2006, File No. 000-51891).
3.2	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Preliminary Information Statement on Form 14C filed on December 29, 2006, File No. 000-51891).
3.3	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on June 4, 2012, File No. 000-51891).
3.3	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on May 14, 2014, File No. 000-51891).
3.4	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on May 6, 2011, File No. 000-51891).
4.1	Form of Specimen Common Stock Certificate. (incorporated by reference to Exhibit 4.1 of the Registrant's Form 10-KSB filed on April 9, 2007, File No. 000-51891).
4.2	Certification of Designation of Series B Preferred Stock (incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed on May 12, 2008, File No. 000-51891).
4.3	Certification of Designation of Series D Preferred Stock (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on January 5, 2009, File No. 000-51891).
4.4	Certificate of Designation of Series G Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on March 14, 2012, File No. 000-51891).
4.5	Form of Series A Warrant (incorporated by reference to Exhibit 4.7 of the Registrant's Form 8-K filed on July 19, 2013, File No. 000-51891).
4.6	Form of Placement Agent Warrant (incorporated by reference to Exhibit 4.10 of the Registrant's Form 8-K filed on July 19, 2013, File No. 000-51891).
4.7	Certificate of Preferences, Rights and Limitations of Series H-1 Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
4.8	Certificate of Preferences, Rights and Limitations of Series H-2 Convertible Preferred Stock (incorporated by reference to Exhibit 3.2 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
4.9	Form of Series A Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
4.10	Form of Series B Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
4.11	Form of Series C Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.3 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
4.12	Form of Placement Agent Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.4 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
10.1	Securities Purchase Agreement dated August 6, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on August 11, 2014, File No. 000-51891).
10.2	Securities Purchase Agreement dated September 10, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on September 16, 2014, File No. 000-51891).
10.3	Form of Securities Purchase Agreement dated October 7, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).
10.4	Form of Registration Rights Agreement (incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed on October 8, 2014, File No. 000-51891).

Exhibit	Description
10.5	Amendment Agreement to Registration Rights Agreement, dated October 29, 2014, between the Company and certain purchasers thereto (incorporated by reference to Exhibit 10.53 of the Registrant's Registration Statement on Form S-1 filed on November 3, 2014, Registration No. 333-199779).
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.*
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.*
32.1	Section 1350 Certification of Chief Executive Officer.*
32.2	Section 1350 Certification of Chief Financial Officer.*
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INTERNATIONAL STEM CELL CORPORATION

Dated: November 13, 2014

By:	/s/ ANDREY SEMECHKIN
Name:	**Andrey Semechkin**
Title:	**Chief Executive Officer**
	(Principal Executive Officer)
By:	/s/ Jay Novak
Name:	**Jay Novak**
Title:	**Chief Financial Officer**
	(Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Andrey Semechkin, Chief Executive Officer of International Stem Cell Corporation, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Stem Cell Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 13, 2014

By: /s/ Andrey Semechkin

Andrey Semechkin
Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Jay Novak, Chief Financial Officer of International Stem Cell Corporation, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Stem Cell Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 13, 2014

By: /s/ Jay Novak

Jay Novak
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of International Stem Cell Corporation (the "Company") for the quarter ended September 30, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Andrey Semechkin, Chief Executive Officer of the Company, hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 13, 2014

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

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of International Stem Cell Corporation (the "Company") for the quarter ended September 30, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jay Novak, Chief Financial Officer of the Company, hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 13, 2014

By: /s/ Jay Novak

Jay Novak
Chief Financial Officer
(Principal Financial and Accounting Officer)