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

FORM 10-Q

QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarter ended: March 31, 2009 **Commission File Number: 0-19871**

STEMCELLS, INC.

(Exact name of registrant as specified in its charter)

DELAWARE	94-3078125
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer identification No)

3155 PORTER DRIVE
PALO ALTO, CA 94304
(Address of principal executive offices including zip code)

(650) 475-3100
(Registrant's telephone number, including area code)

Indicate 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 twelve months (or for such shorter periods 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 o

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 o No o

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ☑

At April 30, 2009, there were 103,198,126 shares of Common Stock, $.01 par value, issued and outstanding.

STEMCELLS, INC.

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NOTE REGARDING REFERENCES TO US AND OUR COMMON STOCK

Throughout this Form 10-Q, the words "we," "us," "our," and "StemCells" refer to StemCells, Inc., including our directly and indirectly wholly-owned subsidiaries (i) StemCells California, Inc., which is the owner or licensee of most of our intellectual property; (ii) StemCells Property Holding LLC; and since April 1, 2009, (iii) Stem Cell Sciences Holdings Ltd; Stem Cell Sciences (UK) Ltd; and Stem Cell Sciences (Australia) Pty Ltd. "Common stock" refers to the common stock, $.01 par value, of StemCells, Inc.

PART I—FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

STEMCELLS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited)

	March 31, 2009	December 31, 2008
ASSETS		
Current assets:		
Cash and cash equivalents	$ 34,057,052	$ 30,042,986
Marketable securities, current	1,017,193	4,181,592
Other receivables	113,184	164,204
Notes receivable	709,076	298,032
Prepaid assets	395,006	645,242
Total current assets	36,291,511	35,332,056
Property, plant and equipment, net	3,185,590	3,173,468
Other assets, non-current	2,073,258	2,079,278
Intangible assets, net	612,505	645,538
Total assets	$ 42,162,864	$ 41,230,340
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 951,317	$ 1,078,123
Accrued expenses and other liabilities	2,207,228	2,261,245
Accrued wind-down expenses, current	1,495,638	1,420,378
Deferred revenue, current	33,753	43,909
Capital lease obligation, current	65,728	18,739
Deferred rent, current	360,858	346,930
Bond payable, current	151,667	149,167
Total current liabilities	5,266,189	5,318,491
Capital lease obligation, non-current	100,198	6,529
Bond payable, non-current	821,250	860,000
Fair value of warrant liability	11,195,379	8,439,931
Deposits and other long-term liabilities	466,211	466,211
Accrued wind-down expenses, non-current	3,840,900	4,092,939
Deferred rent, non-current	—	90,215
Deferred revenue, non-current	142,833	147,039
Total liabilities	21,832,960	19,421,355
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Common stock, $.01 par value; 250,000,000 shares authorized; issued and outstanding 98,855,041 at March 31, 2009 and 94,945,603 at December 31, 2008	988,550	949,455
Additional paid-in capital	287,581,696	279,868,802
Accumulated deficit	(268,283,078)	(259,001,524)
Accumulated other comprehensive income (loss)	42,736	(7,748)
Total stockholders' equity	20,329,904	21,808,985
Total liabilities and stockholders' equity	$ 42,162,864	$ 41,230,340

See Notes to Condensed Consolidated Financial Statements.

STEMCELLS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)

	Three months ended March 31,	
	2009	2008
Revenue:		
Revenue from licensing agreements and grants	$ 56,603	$ 17,350
Operating expenses:		
Research and development	4,235,788	4,499,751
General and administrative	2,538,913	2,254,203
Wind-down expenses	205,436	160,250
Total operating expenses	6,980,137	6,914,204
Loss from operations	(6,923,534)	(6,896,854)
Other income (expense):		
Realized gain on sale of marketable securities	397,866	—
Change in fair value of warrant liability	(2,755,448)	—
Interest income	41,947	383,665
Interest expense	(28,175)	(28,191)
Other expense	(14,210)	(3,609)
Total other income (expense), net	(2,358,020)	351,865
Net loss	$ (9,281,554)	$ (6,544,989)
Basic and diluted net loss per share	$ (0.10)	$ (0.08)
Shares used to compute basic and diluted loss per share	96,048,288	80,703,962

See Notes to Condensed Consolidated Financial Statements.

STEMCELLS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

	Three months ended March 31,	
	2009	2008
Cash flows from operating activities:		
Net loss	$ (9,281,554)	$ (6,544,989)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	298,347	302,647
Stock-based compensation	981,015	1,011,359
Gain on sale of marketable securities	(397,868)	—
Change in fair value of warrant liability	2,755,448	—
Changes in operating assets and liabilities:		
Accrued interest and other receivables	54,976	25,687
Prepaid and other assets, current	250,236	223,181
Other assets, non-current	6,020	(49,232)
Accounts payable and accrued expenses	(180,823)	(1,962,174)
Accrued wind-down expenses	(176,779)	(221,950)
Deferred revenue	(14,362)	(14,363)
Deferred rent	(76,287)	(61,532)
Net cash used in operating activities	(5,781,631)	(7,291,366)
Cash flows from investing activities:		
Proceeds from the sale of marketable securities	3,612,750	10,237,748
Advances under note receivable	(415,000)	—
Purchases of property, plant and equipment	(277,436)	(58,427)
Net cash provided by investing activities	2,920,314	10,179,321
Cash flows from financing activities:		
Proceeds from issuance of common stock, net	6,744,958	—
Proceeds from the exercise of stock options	75,064	—
Proceeds from the exercise of warrants	331,501	—
Payments related to net share issuance of stock based awards	(380,548)	—
Proceeds from (repayment of) capital lease obligations	140,658	(4,274)
Repayment of debt obligations	(36,250)	(32,499)
Net cash (used in) provided by financing activities	6,875,383	(36,773)
Increase in cash and cash equivalents	4,014,066	2,851,182
Cash and cash equivalents, beginning of period	30,042,986	9,759,169
Cash and cash equivalents, end of period	$34,057,052	$12,610,351
Supplemental disclosure of cash flow information:		
Interest paid	$ 28,175	$ 28,191

See Notes to Condensed Consolidated Financial Statements.

Notes to Condensed Consolidated Financial Statements (Unaudited)
March 31, 2009 and 2008

Note 1. Summary of Significant Accounting Policies

Nature of Business

StemCells, Inc., a Delaware corporation, is a biopharmaceutical company that operates in one segment, the development of novel cell-based therapeutics designed to treat human diseases and disorders.

The accompanying financial data as of and for the three months ended March 31, 2009 and 2008 has been prepared by us, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States (US GAAP) have been condensed or omitted pursuant to such rules and regulations. The December 31, 2008 condensed consolidated balance sheet was derived from audited financial statements, but does not include all disclosures required by US GAAP. However, we believe that the disclosures are adequate to make the information presented not misleading. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the notes thereto, included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008.

We have incurred significant operating losses since inception. We expect to incur additional operating losses over the foreseeable future. We have very limited liquidity and capital resources and must obtain significant additional capital and other resources in order to sustain our product development efforts, to provide funding for the acquisition of technologies, businesses and intellectual property rights, preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, general and administrative expenses and other working capital requirements. We rely on our cash reserves, proceeds from equity and debt offerings, proceeds from the transfer or sale of intellectual property rights, equipment, facilities or investments, government grants and funding from collaborative arrangements, to fund our operations. If we exhaust our cash reserves and are unable to obtain adequate financing, we may be unable to meet our operating obligations and we may be required to initiate bankruptcy proceedings. The 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.

Principles of Consolidation

The condensed consolidated financial statements include the accounts of StemCells, Inc., and our wholly-owned subsidiaries, StemCells California, Inc. and StemCells Property Holding LLC. All material intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with US GAAP requires management to make judgments, assumptions and estimates that affect the amounts reported in our condensed consolidated financial statements and accompanying notes. Actual results could differ materially from those estimates.

Significant estimates include the following:

- The grant date fair value of stock-based awards recognized as compensation expense in accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 123 (Revised 2004) *Share Based Payment* (SFAS 123R) (see Note 4, “Stock Based Compensation”).
- Accrued wind-down expenses (see Note 5, “Wind-Down Expenses”).

- The fair value of warrants recorded as a liability in accordance with Emerging Issues Task Force (EITF) Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in a Company's Own Stock* (EITF 00-19). The warrants were issued as part of our November 2008 financing (see Note 7, "Warrant Liability").

Financial Instruments

Cash and Cash Equivalents

We consider money market accounts and investments with a maturity of 90 days or less from the date of purchase to be cash equivalents.

Marketable Securities

Our existing marketable debt and equity securities are designated as available-for-sale securities. These securities are carried at fair value (see Note 2, "Financial Instruments"), with the unrealized gains and losses reported as a component of stockholders' equity. The balance sheet classification of our marketable debt securities as current or non-current is based on their maturity dates. Investments with remaining maturities of 365 days or less not classified as cash equivalents are classified as "Marketable securities, current." Investments with remaining maturities greater than 365 days are classified as "Marketable securities, non-current." Management determines the appropriate designation of its investments in marketable debt and equity securities at the time of purchase and reevaluates such designation as of each balance sheet date. The cost of securities sold is based upon the specific identification method.

If the estimated fair value of a security is below its carrying value, we evaluate whether we have the intent and ability to retain our investment for a period of time sufficient to allow for any anticipated recovery to the cost of the investment, and whether evidence indicating that the cost of the investment is recoverable within a reasonable period of time outweighs evidence to the contrary. Other-than-temporary declines in estimated fair value of all marketable securities are charged to "Other income (expense), net." No such impairment was recognized during the three months ended March 31, 2009 or 2008.

Other Receivables

Our receivables generally consist of interest income on our financial instruments, revenue from licensing agreements, and rent from our sub-lease tenants.

Revenue Recognition

We currently recognize revenue resulting from the licensing and use of our technology and intellectual property. Such licensing agreements may contain multiple elements, such as upfront fees, payments related to the achievement of particular milestones and royalties. Revenue from upfront fees for licensing agreements that contain multiple elements are generally deferred and recognized on a straight-line basis over the term of the agreement. Fees associated with substantive at risk performance-based milestones are recognized as revenue upon completion of the scientific or regulatory event specified in the agreement, and royalties received are recognized as earned. Revenue from collaborative agreements and grants are recognized as earned upon either the incurring of reimbursable expenses directly related to the particular research plan or the completion of certain development milestones as defined within the terms of the relevant collaborative agreement or grant.

Stock-Based Compensation

We account for stock-based payment awards to employees in accordance with SFAS 123R. The compensation expense we record for these awards is based on their grant date fair value as calculated and amortized over their vesting period. See Note 4, "Stock-Based Compensation" for further information.

We account for stock-based awards granted to non-employees in accordance with SFAS 123 and EITF 96-18, *Accounting For Equity Instruments That Are Issued To Other Than Employees For Acquiring, Or In Conjunction With Selling, Goods Or Services*, and accordingly, expense the estimated fair value of such options as calculated using the Black-Scholes-Merton (Black-Scholes) model. The estimated fair value is re-measured at each reporting date and is amortized over the remaining vesting period.

Net Loss per Share

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed based on the weighted-average number of shares of common stock and other dilutive securities. To the extent these securities are anti-dilutive, they are excluded from the calculation of diluted earnings per share.

The following is a reconciliation of the numerators and denominators of the basic and diluted earnings per share computations:

	Three months ended March 31,	
	2009	2008
Net loss	$ (9,281,554)	$ (6,544,989)
Weighted average shares outstanding used to compute basic and diluted net loss per share	96,048,288	80,703,962
Basic and diluted net loss per share	$ (0.10)	$ (0.08)

The following outstanding potentially dilutive common stock equivalents were excluded from the computation of diluted net loss per share because the effect would have been anti-dilutive as of March 31:

	2009	2008
Options	8,355,287	8,798,903
Restricted stock units	1,350,000	1,650,000
Warrants	11,425,354	1,255,000
Total	21,130,641	11,703,903

Comprehensive Loss

Comprehensive loss is comprised of net losses and other comprehensive loss or income (or OCL). OCL includes certain changes in stockholders' equity that are excluded from net losses. Specifically, we include in OCL changes in unrealized gains and losses on our marketable securities. Accumulated other comprehensive income was $42,736 as of March 31, 2009 and accumulated other comprehensive loss was $7,748 as of December 31, 2008.

The activity in OCL was as follows:

	Three months ended March 31,	
	2009	2008
Net loss	$ (9,281,554)	$ (6,544,989)
Net change in unrealized gains and losses on marketable securities	50,484	(862,494)
Comprehensive loss	$ (9,231,070)	$ (7,407,483)

Recent Accounting Pronouncements

In April 2009, the Financial Accounting Standards Board (FASB) issued the following new accounting standards:

- FASB Staff Position No. 107-1 (FSP 107-1) and Accounting Principles Board (APB) Opinion No. 28-1 (APB 28-1), I*nterim Disclosures about Fair Value of Financial Instruments*, which amends FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments* (SFAS 107) and APB Opinion No. 28, *Interim Financial Reporting* (APB 28), to require disclosures about the fair value of financial instruments for interim as well as in annual financial statements. FSP 107-1 and APB 28-1 will be effective for interim reporting periods ending after June 15, 2009. We do not expect the adoption of this accounting standard to have a material impact on our consolidated financial statements.
- FASB Staff Position No. FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly* (FSP 157-4). FSP 157-4

provides additional guidance for estimating fair value in accordance with SFAS No. 157, *Fair Value Measurements*, when the volume and level of activity for the asset or liability have significantly decreased. FSP 157-4 will be applied prospectively and will be effective for interim and annual reporting periods ending after June 15, 2009. We do not expect the adoption of FSP 157-4 to have a material impact on our consolidated financial statements.

- FASB Staff Position No. 115-2, (FSP 115-2) and FASB Staff Position No. 124-2 (FSP124-2), *Recognition and Presentation of Other-Than-Temporary Impairments*, which amends the other-than-temporary impairment guidance for debt and equity securities. FSP 115-2 and FSP 124-2 shall be effective for interim and annual reporting periods ending after June 15, 2009. We do not expect the adoption of FSP 115-2 and FSP 124-2 to have a material impact on our consolidated financial statements.
- FASB Staff Position No. FAS 141(R)-1, *Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies* (FSP 141 (R)-1). FSP 141 (R)–1 amends and clarifies FASB statement No. 141 (R), *Business Combinations* (SFAS 141 (R)), to address issues related to the recognition and measurement of assets and liabilities arising from contingencies in a business combination. Assets and liabilities assumed in a business combination that arise from contingencies should be recognized at fair value on the acquisition date if fair value can be reasonably estimated during the measurement period. If fair value cannot be reasonably estimated, companies should typically account for the acquired contingencies using existing guidance. We adopted SFAS 141(R) and FSP 141(R)-1 on January 1, 2009. We expect SFAS 141(R) and FSP 141(R) -1 will have an impact on our consolidated financial statements; however, the nature and magnitude of the impact will depend upon the nature, terms and size of the acquisition we consummate after the effective date.

In April 2008, the FASB issued FASB Staff Position No. 142-3, *Determination of the Useful Life of Intangible Assets (*FSP 142-3). FSP 142-3 amends the factors that must be considered in developing renewal or extension assumptions used to determine the useful life over which to amortize the cost of a recognized intangible asset under SFAS No. 142, *Goodwill and Other Intangible Assets* (SFAS 142). FSP 142-3 is effective for fiscal years beginning after December 15, 2008. The adoption of FSP142-3 did not have a material impact on our consolidated financial statements.

Note 2. Financial Instruments

The following table summarizes the fair value of our cash, cash equivalents and available-for-sale marketable securities held in our current investment portfolio:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Fair Value
March 31, 2009				
Cash	$ 707,537	$ —	$ —	$ 707,537
Cash equivalents (money market accounts)	33,349,515	—	—	33,349,515
Marketable debt securities, current (maturity within 1 year)	900,000	4	—	900,004
Marketable equity securities, current	74,457	42,732	—	117,189
Total cash, cash equivalents, and marketable securities	$35,031,509	$ 42,736	$ —	$35,074,245
December 31, 2008				
Cash	$ 243,883	$ —	$ —	$ 243,883
Cash equivalents (money market accounts)	29,799,103	—	—	29,799,103
Marketable debt securities, current (maturity within 1 year)	4,002,537	—	(7,748)	3,994,789
Marketable equity securities, current	186,803	—	—	186,803
Total cash, cash equivalents, and marketable securities	$34,232,326	$ —	$ (7,748)	$34,224,578

Gross unrealized gains and losses on cash equivalents were not material at March 31, 2009 and December 31, 2008. At March 31, 2009, our investment in marketable debt securities were in money market accounts composed primarily of US Treasury securities and repurchase agreements that are backed by US Treasury securities.

Our investment in marketable equity securities consists of ordinary shares of ReNeuron Group Plc (ReNeuron), a publicly listed UK corporation. In July 2005, we entered into an agreement with ReNeuron. As part of the agreement, we granted ReNeuron a license

that allows ReNeuron to exploit their "c-mycER" conditionally immortalized adult human neural stem cell technology for therapy and other purposes. We received shares of ReNeuron common stock, as well as a cross-license to the exclusive use of ReNeuron's technology for certain diseases and conditions, including lysosomal storage diseases, spinal cord injury, cerebral palsy, and multiple sclerosis. The agreement also provides for full settlement of any potential claims that either we or ReNeuron might have had against the other in connection with any putative infringement of certain of each party's patent rights prior to the effective date of the agreement. In July and August 2005, we received approximately 8,836,000 ordinary shares of ReNeuron common stock, net of approximately 104,000 shares that were transferred to NeuroSpheres, and subsequently, as a result of certain anti-dilution provisions in the agreement, we received approximately 1,261,000 more shares, net of approximately 18,000 shares that were transferred to NeuroSpheres. In February 2007, we sold 5,275,000 shares for net proceeds of approximately $3,075,000. We recognized approximately $716,000 as realized gain from this transaction. At December 31, 2008, we owned 4,821,924 shares of ReNeuron with a carrying and fair market value of approximately $187,000. In the first quarter of 2009, we sold in aggregate 2,900,000 shares of ReNeuron and received net proceeds of approximately $510,000 for a realized gain of approximately $398,000. As of March 31, 2009, we owned 1,921,424 shares of ReNeuron with a carrying and fair market value of approximately $117,000.

Changes in the market value of our ReNeuron shares as a result of changes in market price per share or the exchange rate between the US dollar and the British pound are accounted for under "other comprehensive income (loss)" if deemed temporary and are not recorded as "other income (expense), net" until the shares are disposed of and a gain or loss realized. If the fair value of a security is below its carrying value, we evaluate whether we have the intent and ability to retain our investment for a period of time sufficient to allow for any anticipated recovery to the cost of the investment, and whether evidence indicating that the cost of the investment is recoverable within a reasonable period of time outweighs evidence to the contrary. Other-than-temporary declines in estimated fair value of all marketable securities are charged to "other income (expense), net." For the three months ended March 31, 2009, we recorded an unrealized gain of approximately $43,000.

Notes Receivable

In December 2008 and March 2009, we made two secured loans to Stem Cell Sciences Plc ("SCS") in connection with our acquisition negotiations with SCS. The loans accrued interest at 8% per annum and were repayable six months after the initial funding. At March 31, 2009, the principal and accrued interest for these two loans together totaled approximately $709,000. On April 1, 2009, we closed the acquisition of substantially all of the operating assets and liabilities of SCS, and in connection with that transaction, we waived the obligation of SCS to repay the principal and accrued interest of these two loans.

Note 3. Fair Value Measurement

Effective January 1, 2008, we adopted SFAS 157. The adoption of SFAS 157 did not have a material impact on our financial statements. SFAS 157 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. As a basis for considering such assumptions, SFAS 157 establishes a three-tier value hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value:

Level 1 — Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 — Directly or indirectly observable inputs other than in Level 1, that include quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in markets that are not active.

Level 3 — Unobservable inputs which are supported by little or no market activity that reflects the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

In accordance with SFAS 157, we measure our financial assets and liabilities at fair value. Our cash equivalents and marketable securities are classified within Level 1 or Level 2. This is because our cash equivalents and marketable securities are valued primarily

using quoted market prices or alternative pricing sources and models utilizing market observable inputs. We currently do not have any Level 3 financial assets or liabilities.

The following table presents financial assets and liabilities measured at fair value:

	Fair Value Measurement at Reporting Date Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	As of March 31, 2009
Assets			
Cash Equivalents:			
Money market funds	$ 2,860,546	$ —	$ 2,860,546
U.S. Treasury securities	30,488,969	—	30,488,969
Marketable Securities:			
Equity securities	117,189	—	117,189
Corporate bonds	—	900,004	900,004
Total assets	$ 33,466,704	$ 900,004	$ 34,366,708
Liabilities			
Bond payable	$ —	$ 972,917	$ 972,917

Note 4. Stock-Based Compensation

We currently grant stock-based awards under three equity incentive plans. We had 19,025,067 shares authorized to be granted under the three plans as of March 31, 2009. Under these plans we may grant incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock, restricted stock units, and performance-based shares to our employees, directors and consultants, at prices determined by our Board of Directors. Incentive stock options may only be granted to employees under these plans with a grant price not less than the fair market value on the date of grant.

Our compensation expense for stock options and restricted stock units issued from our equity incentive plans for the three months ended March 31 was as follows:

	Three months ended March 31,	
	2009	2008
Research and development expense	$ 489,139	$ 480,349
General and administrative expense	461,268	490,578
Total employee stock-based compensation expense and effect on net loss	$ 950,407	$ 970,927
Effect on basic and diluted net loss per common share	$ (0.01)	$ (0.01)

As of March 31, 2009, we have approximately $4,841,000 of total unrecognized compensation expense related to unvested awards granted under our various stock-based plans that we expect to recognize over a weighted-average vesting period of 1.9 years.

Incentive Stock Options

Generally, stock options granted to employees have a maximum term of ten years, and vest over a four year period from the date of grant; 25% vest at the end of one year, and 75% vest monthly over the remaining three-year service period. We may grant options with different vesting terms from time to time. Upon employee termination of service, any unexercised vested option will be forfeited three months following termination or the expiration of the option, whichever is earlier. Unvested options are forfeited on termination.

A summary of our stock option activity for the three months ended March 31, 2009 is as follows:

	Number of options	Weighted-average exercise price ($)
Balance at December 31, 2008	8,340,530	2.32
Granted	102,500	1.72
Exercised	(35,500)	1.21
Cancelled	(52,243)	2.03
Outstanding options at March 31, 2009	8,355,287	2.32

The estimated weighted-average fair value of options granted in the three months ended March 31, 2009 and 2008 was approximately $1.40 and $1.48 per share respectively. The fair value of options granted is estimated as of the date of grant using the Black-Scholes option pricing model, which requires certain assumptions as of the date of grant. The weighted-average assumptions used as of March 31, 2009 and 2008 were as follows:

	March 31,	
	2009	2008
Expected life (years)(1)	7.62	6.22
Risk-free interest rate(2)	2.41%	2.80%
Expected volatility(3)	96.45%	74.75%
Expected dividend yield(4)	0%	0%

(1) The expected term represents the period during which our stock-based awards are expected to be outstanding. We estimated this amount based on historical experience of similar awards, giving consideration to the contractual terms of the awards, vesting requirements, and expectation of future employee behavior, including post-vesting terminations.

(2) The risk-free interest rate is based on U.S. Treasury debt securities with maturities close to the expected term of the option as of the date of grant.

(3) Expected volatility is based on historical volatility over the most recent historical period equal to the length of the expected term of the option as of the date of grant.

(4) We have not historically issued any dividends, and we do not expect to in the foreseeable future.

At the end of each reporting period we estimate forfeiture rates based on our historical experience within separate groups of employees and adjust the stock-based compensation expense accordingly.

A summary of changes in unvested options for the three months ended March 31, 2009 is as follows:

	Number of options	Weighted-average grant date fair value ($)
Unvested options at December 31, 2008	2,614,089	1.85
Granted	102,500	1.40
Vested	(343,985)	2.08
Cancelled	(52,243)	1.63
Unvested options at March 31, 2009	2,320,361	1.80

The estimated fair value of shares vested were approximately $715,000 in the three months ended March 31, 2009.

Restricted Stock Units

We have granted restricted stock units (RSUs) to certain employees which entitle the holders to receive shares of our common stock upon vesting of the RSUs. The fair value of restricted stock units granted are based upon the market price of the underlying common stock as if it were vested and issued on the date of grant.

A summary of our restricted stock unit activity for the three months ended March 31, 2009 is as follows:

	Number of RSUs	Weighted-average grant date fair value ($)
Balance at December 31, 2008 (1)	1,650,000	1.26
Granted (2)	250,000	1.50
Vested and converted to common shares	(550,000)	1.26
Cancelled	—	—
Balance unvested at March 31, 2009	1,350,000	1.30

(1) These restricted stock units vest and convert into shares of our common stock over a three year period from the date of grant: one-third of the award will vest on each grant date anniversary over the following three years.

(2) These restricted stock units will vest and convert into shares of our common stock subject to attainment of certain performance criteria and will be forfeited if not met by March 31, 2011.

Stock Appreciation Rights

In July 2006, we granted cash-settled Stock Appreciation Rights (SARs) to certain employees that give the holder the right, upon exercise, to the difference between the price per share of our common stock at the time of exercise and the exercise price of the SARs. The SARs have a maximum term of ten years with an exercise price of $2.00, which is equal to the market price of our common stock at the date of grant. The SARs vest 25% on the first anniversary of the grant date and 75% vest monthly over the remaining three-year service period. Compensation expense is based on the fair value of SARs which is calculated using the Black-Scholes option pricing model. The stock-based compensation expense and liability are re-measured at each reporting date through the date of settlement.

A summary of the changes in SARs for the three months ended March 31, 2009 is as follows:

	Number of SARs
Outstanding at December 31, 2008	1,430,849
Granted	—
Exercised	—
Forfeited and expired	—
Outstanding SARs at March 31, 2009	1,430,849
SARs exercisable at March 31, 2009	953,893

For the three months ended March 31, 2009, we re-measured the compensation expense and liability related to the SARs and recorded compensation expense of approximately $242,000. For the same period in 2008, due to forfeitures and a decrease in our common stock price, the re-measured fair value, reduced compensation expense by approximately $42,000.

At March 31, 2009, approximately $359,000 of unrecognized compensation expense related to SARs is expected to be recognized over a weighted average vesting period of approximately 1.0 year. The resulting effect on net loss and net loss per share attributable to common stockholders is not likely to be representative of the effects in future periods, due to changes in the fair value calculation which is dependent on the stock price, volatility, interest and forfeiture rates, additional grants and subsequent periods of vesting.

Note 5. Wind-Down Expenses

In October 1999, we relocated to California from Rhode Island and established a wind down reserve for the estimated lease payments and operating costs of the scientific and administrative facility in Rhode Island. Even though we intend to dispose of the facility at the earliest possible time, we cannot determine with certainty a fixed date by which such disposal will occur. In light of this uncertainty, we periodically re-evaluate and adjust the reserve. We consider various factors such as our lease payments through to the

end of the lease, operating expenses, the current real estate market in Rhode Island, and estimated subtenant income based on actual and projected occupancy.

The summary of the changes to our wind-down reserve as of March 31, 2009 and December 31, 2008 were as follows:

	January to March 31, 2009	January to December 31, 2008
Accrued wind-down reserve at beginning of period	$ 4,448,000	$ 4,875,000
Less actual expenses recorded against estimated reserve during the period	(331,000)	(1,293,000)
Additional expense recorded to revise estimated reserve at period-end	206,000	866,000
Revised reserve at period-end	4,323,000	4,448,000
Add deferred rent at period-end	1,014,000	1,065,000
Total accrued wind-down expenses at period-end (current and non current)	$ 5,337,000	$ 5,513,000
Accrued wind-down expenses, current	$ 1,496,000	$ 1,420,000
Accrued wind-down expenses, non-current	3,841,000	4,093,000
Total accrued wind-down expenses	$ 5,337,000	$ 5,513,000

Note 6. Commitments and Contingencies

Leases

Capital leases

We entered into direct financing transactions with the State of Rhode Island and received proceeds from the issuance of industrial revenue bonds totaling $5,000,000 to finance the construction of our pilot manufacturing facility in Rhode Island. The related lease agreements are structured such that lease payments fully fund all semiannual interest payments and annual principal payments through maturity in August 2014. The interest rate for the remaining bond series is 9.5%. The bond contains certain restrictive covenants which limit, among other things, the payment of cash dividends and the sale of the related assets. The outstanding principal was approximately $973,000 at March 31, 2009 and $1,009,000 at December 31, 2008.

Operating leases

We entered into a fifteen-year lease agreement for a scientific and administrative facility in Rhode Island in connection with a sale and leaseback arrangement in 1997. The lease term expires June 30, 2013. The lease contains escalating rent payments, which we recognize on a straight-line basis. Deferred rent expense for this facility was approximately $1,014,000 at March 31, 2009 and $1,065,000 at December 31, 2008, and is included as part of the wind-down accrual on the accompanying condensed consolidated balance sheet.

We entered into and amended a lease agreement for an approximately 68,000 square foot facility located at the Stanford Research Park in Palo Alto, California. The facility includes space for animals, laboratories, offices, and a GMP (Good Manufacturing Practices) suite. GMP facilities can be used to manufacture materials for clinical trials. The lease term expires March 31, 2010. Under the term of the agreement we were required to provide a letter of credit for a total of approximately $778,000, which serves as a security deposit for the duration of the lease term. The letter of credit issued by our financial institution is collateralized by a certificate of deposit for the same amount, which is reflected as restricted cash in other assets, non-current on our condensed consolidated balance sheets. The lease contains escalating rent payments, which we recognize as operating lease expense on a straight-line basis. Deferred rent was approximately $361,000 as of March 31, 2009 and $437,000 as of December 31, 2008, and is reflected as deferred rent on our condensed consolidated balance sheet. As of March 31, 2009, we had a space-sharing agreement covering approximately 10,451 square feet of this facility under which, we receive base payments plus a proportionate share of the operating expenses based on square footage over the term of the agreement.

Contingencies

In July 2006, we filed suit against Neuralstem, Inc. in the Federal District Court for the District of Maryland, alleging that Neuralstem's activities violate claims in four of the patents we exclusively licensed from NeuroSpheres. Neuralstem has filed a motion for dismissal or summary judgment in the alternative, citing Title 35, Section 271(e)(1) of the United States Code, which says that it is not an act of patent infringement to make, use or sell a patented invention "solely for uses reasonably related to the development and submission of information" to the FDA. Neuralstem argues that because it does not have any therapeutic products on the market yet, the activities complained of fall within the protection of Section 271(e)(1) — that is, basically, that the suit is premature. This issue will be decided after discovery is complete. Subsequent to filing its motion to dismiss, in December 2006, Neuralstem petitioned the U.S. Patent and Trademark Office (PTO) to reexamine two of the patents in our infringement action against Neuralstem, namely U.S. Patent No. 6,294,346 (claiming the use of human neural stem cells for drug screening) and U.S. Patent No. 7,101,709 (claiming the use of human neural stem cells for screening biological agents). In April 2007, Neuralstem petitioned the PTO to reexamine the remaining two patents in the suit, namely U.S. Patent No. 5,851,832 (claiming methods for proliferating human neural stem cells) and U.S. Patent No. 6,497,872 (claiming methods for transplanting human neural stem cells). These requests were granted by the PTO and, in June 2007, the parties voluntarily agreed to stay the pending litigation while the PTO considers these reexamination requests. In October 2007, Neuralstem petitioned the PTO to reexamine a fifth patent, namely U.S. Patent No. 6,103,530, which claims a culture medium for proliferating mammalian neural stem cells. In April 2008, the PTO upheld the '832 and '872 patents, as amended, and issued Notices of Intent to Issue an Ex Parte Reexamination Certificate for both. In August 2008, the PTO upheld the '530 patent, as amended, and issued a Notice of Intent to Issue an Ex Parte Reexamination Certificate. The remaining two patents are still under review by the PTO.

In May 2008, we filed a second patent infringement suit against Neuralstem and its two founders, Karl Johe and Richard Garr. In this suit, which we filed in the Federal District Court for the Northern District of California, we allege that Neuralstem's activities infringe claims in two patents we exclusively license from NeuroSpheres, specifically U.S. Patent No. 7,361,505 (claiming composition of matter of human neural stem cells derived from any source material) and U.S. Patent No. 7,115,418 (claiming methods for proliferating human neural stem cells). In addition, we allege various state law causes of action against Neuralstem arising out of its repeated derogatory statements to the public about our patent portfolio. Also in May 2008, Neuralstem filed suit against us and NeuroSpheres in the Federal District Court for the District of Maryland seeking a declaratory judgment that the '505 and '418 patents are either invalid or are not infringed by Neuralstem and that Neuralstem has not violated California state law. In August 2008, the California court transferred our lawsuit against Neuralstem to Maryland for resolution on the merits. We anticipate that the Maryland District Court will consolidate these actions in some manner prior to trial.

Indemnification Agreement

In July 2008, we amended our 1997 and 2000 license agreements with NeuroSpheres. NeuroSpheres is the holder of certain patents exclusively licensed by us, including the six patents that are the basis of our patent infringement suits against Neuralstem. As part of the amendment, we agreed to pay all reasonable litigation costs, expenses and attorney's fees incurred by NeuroSpheres in the declaratory judgment suit between us and Neuralstem. In return, we are entitled to off-set all litigation costs incurred in that suit against amounts that would otherwise be owed under the license agreements, such as annual maintenance fees, milestones and royalty payments. At this time, we cannot estimate the likely total costs of our pending litigation with Neuralstem, given the unpredictable nature of such proceedings, or the total amount we may ultimately owe under the NeuroSpheres license agreements. However, the ability to apply the offsets will run for the entire term of each license agreement. For these reasons, we have chosen to approximate the potential value of the offset receivable by assuming that all litigation charges actually incurred in the declaratory judgment action as of March 31, 2009, will ultimately be offset against royalties owed. Management will reevaluate this assumption on a quarterly basis based on actual costs and other relevant factors.

Note 7. Warrant Liability

In November 2008, we sold 13,793,104 units to institutional investors at a price of $1.45 per unit, for gross proceeds of $20,000,000. The units, each of which consisted of one share of common stock and a warrant to purchase 0.75 shares of common stock at an exercise price of $2.30 per share, were offered as a registered direct offering under an effective shelf registration statement previously filed with and declared effective by the Securities and Exchange Commission. We received total proceeds, net of offering expenses and placement agency fees, of approximately $18,637,000. We recorded the fair value of the warrants to purchase 10,344,828 shares of our common stock as a liability. The fair value of the warrant liability is revalued at the end of each reporting period, with the change in fair value of the warrant liability recorded as a gain or loss in our Consolidated Statement of Operations. We used the Black-Scholes option pricing model to estimate the fair value of these warrants. In using this model, we make certain assumptions about risk-free interest rates, dividend yields, volatility and expected term of the warrants. Risk-free interest rates are derived from the yield on U.S. Treasury debt securities. Dividend yields are based on our historical dividend payments, which have been zero to date. Volatility is derived from the historical volatility of our common stock as traded on Nasdaq. The expected term of the warrants is based on the time to expiration of the warrants from the date of measurement.

The assumptions used for the Black-Scholes option pricing model at March 31, 2009 are as follows:

Expected life (years)	5.12
Risk-free interest rate	1.90%
Expected volatility	88.7%
Expected dividend yield	0%

	At March 31, 2009	At December 31, 2008	Change in Fair Value
Fair value of warrant liability	$ 11,195,379	$ 8,439,931	$ 2,755,448

The fair value of the warrants will continue to be classified as a liability until such time as the warrants are exercised, expire or an amendment of the warrant agreement renders these warrants to be no longer classified as a liability.

Note 8. Common Stock

Major transactions involving our common stock for the three-month period ended March 31, 2009 include the following:

- In February 2009, warrants issued as part of a June 2004 financing arrangement were exercised to purchase an aggregate of 174,474 shares of common stock at $1.90 per share. We issued 174,474 shares of common stock and received proceeds of approximately $332,000.
- In the first quarter of 2009, we sold in aggregate 3,325,000 shares of common stock at an average price of $2.10 per share for gross proceeds of approximately $6,999,000. These shares were sold pursuant to the sales agreement we entered into with Cantor Fitzgerald & Co. (Cantor), who is paid compensation equal to 5.0% of the gross proceeds.

Note 9. Subsequent Events

On April 1, 2009, we closed the acquisition of substantially all of the operating assets and liabilities of SCS. As consideration for the operating assets acquired and liabilities assumed, we issued 2,650,000 shares of common stock to SCS and waived certain commitments of SCS to repay loan principal and accrued interest of approximately $709,000 owed to us.

In the second quarter of 2009, we sold 4,162,400 shares of common stock at an average price of $1.75 per share for gross proceeds of approximately $7,284,000. These shares were sold pursuant to the sales agreement we have with Cantor, who is paid compensation equal to 5.0% of the gross proceeds.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This report contains forward looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act that involve substantial risks and uncertainties. Such statements include, without limitation, all statements as to expectation or belief and statements as to our future results of operations; the progress of our research, product development and clinical programs; the need for, and timing of, additional capital and capital expenditures; partnering prospects; costs of manufacture of products; the protection of, and the need for, additional intellectual property rights; effects of regulations; the need for additional facilities; and potential market opportunities. Our actual results may vary materially from those contained in such forward-looking statements because of risks to which we are subject, including uncertainty as to whether the U.S. Food and Drug Administration (FDA) or other regulatory authorities will permit us to proceed with clinical testing of proposed products despite the novel and unproven nature of our technologies; the risk that one or more of our clinical trials or studies could be substantially delayed beyond their expected dates or cause us to incur substantial unanticipated costs; uncertainties in our ability to obtain the capital resources needed to continue our current research and development operations and to conduct the research, preclinical development and clinical trials necessary for regulatory approvals; the uncertainty regarding our ability to obtain a corporate partner or partners, if needed, to support the development and commercialization of our potential cell-based therapeutics products; the uncertainty regarding the outcome of our Phase I clinical trial in NCL and any other clinical trials or studies we may conduct in the future; the uncertainty regarding the validity and enforceability of our issued patents; the risk that we may not be able to manufacture additional master and working cell banks when needed; the uncertainty whether any products that may be generated in our cell-based therapeutics programs will prove clinically safe and effective; the uncertainty whether we will achieve revenue from product sales or become profitable; uncertainties regarding our obligations with respect to our former encapsulated cell therapy facilities in Rhode Island; obsolescence of our technologies; competition from third parties; intellectual property rights of third parties; litigation risks; and other risks to which we are subject. All forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements and risk factors set forth in "Risk Factors" in Part II, Item 1A of this report and Part I, Item 1A included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008

Overview

The Company

Our research and development (R&D) programs are primarily focused on identifying and developing potential cell-based therapeutics which can either restore or support organ function. In particular, since we relocated our corporate headquarters and research laboratories to California in 1999, our R&D efforts have been directed at refining our methods for identifying, isolating, culturing, and purifying the human neural stem cell and human liver engrafting cells (hLEC) and developing these as potential cell-based therapeutics for the central nervous system (CNS) and the liver, respectively. In our CNS Program, our HuCNS-SC® product candidate (purified human neural stem cells) is in clinical development for two indications. In January 2009, we completed a six patient Phase I clinical trial to evaluate the safety and preliminary efficacy of HuCNS-SC cells as a treatment for infantile and late infantile neuronal ceroid lipofuscinosis (NCL), two forms of a group of disorders often referred to as Batten disease. In December 2008, the FDA approved our IND to initiate a Phase I clinical trial of HuCNS-SC cells in a second indication, Pelizeaus-Merzbacher Disease (PMD), a fatal myelination disorder in the brain. We expect the PMD trial to begin enrolling patients in 2009 and that the trial will take 12-18 months to complete. In addition, our HuCNS-SC cells are in preclinical development for spinal cord injury and retinal disorders. In our Liver Program, we are in preclinical development with our human liver engrafting cells and we plan to seek the necessary approvals to initiate a clinical experiment to evaluate hLEC as a potential cellular therapy, with the initial indication likely to be liver-based metabolic disorders. For a brief description of our significant therapeutic research and development programs see Overview “Research and Development Programs” in the Business Section of Part I, Item 1 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008. We have also conducted research on several other cell types and in other areas, which could lead to other possible product candidates, process improvements or further research activities.

On April 1, 2009, we acquired substantially all of the operating assets and liabilities of Stem Cell Sciences Plc (“SCS”). The acquired business includes proprietary cell technologies relating to embryonic stem cells, induced pluripotent stem (iPS) cells, and tissue-derived (adult) stem cells; expertise and infrastructure for providing cell-based assays for drug discovery; a media formulation and reagent business; and an intellectual property portfolio with claims relevant to cell processing, reprogramming and manipulation, as well as to gene targeting and insertion. This acquisition positions us to pursue applications of our cell technologies to develop cell-based research tools, which we believe represent nearer-term commercial opportunities. See Note 9, “Subsequent Events.”

We have not derived any revenue or cash flows from the sale or commercialization of any products except for license revenue for certain of our patented cells and media for use in research. The SCS business we acquired has also derived revenue from sales and royalties on sales of media, services provided on a contract basis, and licenses of intellectual property, but such revenue has been limited and there can be no assurance that these revenues will increase. As a result, we have incurred annual operating losses since inception and expect to incur substantial operating losses in the future. Therefore, we are dependent upon external financing from equity and debt offerings and revenue from collaborative research arrangements with corporate sponsors to finance our operations. We have no such collaborative research arrangements at this time and there can be no assurance that such financing or partnering revenue will be available when needed or on terms acceptable to us.

Before we can derive revenue or cash inflows from the commercialization of any of our therapeutic product candidates, we will need to: (i) conduct substantial in vitro testing and characterization of our proprietary cell types, (ii) undertake preclinical and clinical testing for specific disease indications; (iii) develop, validate and scale-up manufacturing processes to produce these cell-based therapeutics, and (iv) pursue required regulatory approvals. These steps are risky, expensive and time consuming.

Overall, we expect our R&D expenses to be substantial and to increase for the foreseeable future as we continue the development and clinical investigation of our current and future therapeutic product candidates. In addition, we expect our expenses and expenditures to increase as a result of our acquisition of the SCS business and as we begin to develop non-therapeutic applications of our cell technologies. However, expenditures on R&D programs are subject to many uncertainties, including whether we develop our product candidates with a partner or independently. We cannot forecast with any degree of certainty which of our product candidates or technologies will be subject to future collaboration, when such collaboration agreements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements. In addition, there are numerous factors associated with the successful commercialization of any of our cell-based products, including future regulatory requirements and legal restrictions on the procurement of human tissue for medical research, many of which cannot be determined with accuracy at this time given the stage of our development and the novel nature of stem cell technologies. The regulatory pathways, both in the United States and internationally, are complex and fluid given the novel and, in general, clinically unproven nature of stem cell technologies. At this time, due to such uncertainties and inherent risks, we cannot estimate in a meaningful way the duration of, or the costs to complete, our R&D programs or whether, when or to what extent we will generate revenues or cash inflows from the commercialization and sale of any of our therapeutic product candidates or any non-therapeutic applications of our cell technologies. While we are currently focused on advancing each of our product development programs, our future R&D expenses will depend on the determinations we

make as to the scientific and clinical prospects of each product candidate, as well as our ongoing assessment of the regulatory requirements and each product candidate's commercial potential.

There can be no assurance that we will be able to develop any product successfully, or that we will be able to recover our development costs, whether upon commercialization of a developed product or otherwise. We cannot provide assurance that any of these programs will result in products that can be marketed or marketed profitably. If certain of our development-stage programs do not result in commercially viable products, our results of operations could be materially adversely affected.

Significant Events

In January 2009, we completed the six-patient Phase I clinical trial of our HuCNS-SC product candidate as a treatment for infantile and late infantile neuronal ceroid lipofuscinosis (NCL).

In May 2009 we terminated an agreement to purchase a building in Sunnyvale, California which we had entered into with North Pastoria Sunnyvale, LLC in March 2009. Our obligation to purchase the building was subject to due diligence and other pre-closing conditions, and we decided not to purchase the building.

In April 2009, we announced that a major international pharmaceutical company acquired a non-exclusive license to our Internal Ribosome Entry Site (IRES) technology, which we acquired as part of the SCS transaction. The IRES technology enables researchers to genetically modify any mammalian cell and to monitor the activity of a particular gene of interest without blocking the normal function of the gene. The IRES technology is particularly important for evaluating the success of gene knock-outs or knock-ins in stem cells, as well as for the successful creation of transgenic mouse and rat disease models.

In May 2009, our collaborators at Oregon Health & Science University Casey Eye Institute presented data showing that human central nervous system stem cells, when transplanted in an animal model of retinal degeneration, engraft long-term and can protect the retina from progressive degeneration. Retinal degeneration leads to loss of vision in diseases such as age-related macular degeneration and retinitis pigmentosa. The human neural stem cells used in the study were supplied by us and were selected, purified and grown as neurospheres using our proprietary methods.

Critical Accounting Policies and the Use of Estimates

The accompanying discussion and analysis of our financial condition and results of operations are based on our condensed consolidated financial statements and the related disclosures, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these condensed consolidated financial statements requires management to make estimates, assumptions, and judgments that affect the reported amounts in our condensed consolidated financial statements and accompanying notes. These estimates form the basis for making judgments about the carrying values of assets and liabilities. We base our estimates and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, and we have established internal controls related to the preparation of these estimates. Actual results and the timing of the results could differ materially from these estimates.

Stock-Based Compensation

Effective January 1, 2006, we adopted Statement of Financial Accounting Standards 123 (revised 2004), Share-Based Payment, (SFAS 123R). SFAS 123R requires us to recognize expense related to the fair value of our stock-based payment awards, including employee stock options. Under the provisions of SFAS 123R, employee stock-based payment is estimated at the date of grant based on the award's fair value using the Black-Scholes-Merton (Black-Scholes) option-pricing model and is recognized as expense ratably over the requisite service period. The Black-Scholes option-pricing model requires the use of certain assumptions, the most significant of which are our estimates of the expected volatility of the market price of our stock and the expected term of the award. Our estimate of the expected volatility is based on historical volatility. The expected term represents the period during which our stock-based awards are expected to be outstanding. From January 1, 2006 to December 31, 2007, and in accordance with Staff Accounting Bulletin 107, Share-Based Payment (SAB 107), the expected term was equal to the average of the contractual life of the stock option and its vesting period as of the date of grant (the simplified method). In December 2007, the SEC issued Staff Accounting Bulletin 110, Share-Based Payment (SAB 110), extending the availability of SAB 107 beyond its original deadline of December 31, 2007. The extension is available for companies under specified conditions that include a lack of sufficient historical exercise data related to their

stock-based awards. Effective January 1, 2008, in accordance with SAB 110, we no longer use the simplified method and estimate the expected term based on historical experience of similar awards, giving consideration to the contractual terms of the awards, vesting requirements, and expectation of future employee behavior, including post-vesting terminations. The change of method in estimating the expected term did not have a material impact on our condensed consolidated financial statements.

As required under SFAS 123R, we review our valuation assumptions at each grant date and, as a result, our assumptions in future periods may change. As of March 31, 2009, total compensation cost related to unvested stock-based awards not yet recognized was approximately $4,841,000, which is expected to be recognized as expense over a weighted-average period of 1.9 years. See also Note 4, “Stock-Based Compensation,” in the notes to condensed consolidated financial statements of Part I, Item 1 of this Form 10-Q for further information.

Wind-down expenses

In connection with exiting our research and manufacturing operations in Lincoln, Rhode Island, and the relocation of our corporate headquarters and remaining research laboratories to California in October 1999, we provided a reserve for our estimate of the exit cost obligation in accordance with EITF 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring). The reserve reflects estimates of the ongoing costs of our former scientific and administrative facility in Lincoln, which we hold on a lease that terminates on June 30, 2013. We are seeking to sublease, assign, sell, or otherwise divest ourselves of our interest in the facility at the earliest possible time, but we cannot determine with certainty a fixed date by which such events will occur, if at all.

In determining the facility exit cost reserve amount, we are required to consider our lease payments through to the end of the lease term and estimate other relevant factors such as facility operating expenses, real estate market conditions in Rhode Island for similar facilities, occupancy rates, and sublease rental rates projected over the course of the leasehold. We re-evaluate the estimate each quarter, taking account of changes, if any, in each underlying factor. The process is inherently subjective because it involves projections over time — from the date of the estimate through the end of the lease — and it is not possible to determine any of the factors, except the lease payments, with certainty over that period.

Management forms its best estimate on a quarterly basis, after considering actual sublease activity, reports from our broker/realtor about current and predicted real estate market conditions in Rhode Island, the likelihood of new subleases in the foreseeable future for the specific facility and significant changes in the actual or projected operating expenses of the property. We discount the projected net outflow over the term of the leasehold to arrive at the present value, and adjust the reserve to that figure. The estimated vacancy rate for the facility is an important assumption in determining the reserve because changes in this assumption have the greatest effect on estimated sublease income. In addition, the vacancy rate estimate is the variable most subject to change, while at the same time it involves the greatest judgment and uncertainty due to the absence of highly predictive information concerning the future of the local economy and future demand for specialized laboratory and office space in that area. The average vacancy rate of the facility over the last six years (2003 through 2008) was approximately 74%, varying from 66% to 89%. As of March 31, 2009, based on current information available to management, the vacancy rate is projected to be approximately 78% for 2009 and approximately 70% from 2010 through the end of the lease. These estimates are based on actual occupancy as of March 31, 2009, predicted lead time for acquiring new subtenants, historical vacancy rates for the area, and assessments by our broker/realtor of future real estate market conditions. If the assumed vacancy rate from 2010 to the end of the lease had been 5% higher or lower at March 31, 2009, then the reserve would have increased or decreased by approximately $168,000. Similarly, a 5% increase or decrease in the operating expenses for the facility from 2010 on would have increased or decreased the reserve by approximately $90,000, and a 5% increase or decrease in the assumed average rental charge per square foot would have increased or decreased the reserve by approximately $50,000. Management does not wait for specific events to change its estimate, but instead uses its best efforts to anticipate them on a quarterly basis. See Note 5 “Wind-down expenses,” in the notes to condensed consolidated financial statements of Part I, Item 1 of this Form 10-Q for further information

Results of Operations

Our results of operations have varied significantly from year to year and quarter to quarter and may vary significantly in the future due to the occurrence of material recurring and nonrecurring events, including without limitation the receipt and payment of recurring and nonrecurring licensing payments, the initiation or termination of research collaborations and development programs for both therapeutic products andcell-based research tools, unpredictable or unanticipated manufacturing and supply costs, unanticipated

capital expenditures necessary to support our business, expenses arising out of the integration of the acquired SCS business, developments in on-going patent protection and litigation, the on-going expenses to lease and maintain our Rhode Island facilities, and the increasing costs associated with operating our California facility.

Revenue

Revenue totaled approximately $57,000 for the three months ended March 31, 2009 and $17,000 for the three months ended March 31, 2008.

	2009	2008	Change in 2009 versus 2008	
			$	%
Revenue:				
Licensing agreements and grants	$ 56,603	$ 17,350	$ 39,253	226%

The increase in licensing and grant revenue for the three months ended March 31, 2009 as compared to the same period in 2008, was primarily attributable to a $305,000 grant we were awarded from the National Institute of Diabetes and Digestive and Kidney Diseases to research and develop a potential cell-based therapeutic for liver disease. The grant was awarded in October 2008 and we recognized approximately $31,000 as grant revenue for the three months ended March 31, 2009. The award is a Phase I grant under the Small Business Innovation Research (SBIR) Program of the National Institutes of Health. Should the objectives of the research funded by this grant be met, we anticipate applying for Phase II and additional funding under the SBIR Program. The remaining revenue for the three months ended March 31, 2009 and the revenue for the three months ended March 31, 2008 consist of licensing fees from existing licensing agreements.

Operating Expenses

Operating expenses totaled approximately $6,980,000 for the three months ended March 31, 2009 and $6,914,000 for the three months ended March 31, 2008.

	2009	2008	Change in 2009 versus 2008	
			$	%
Operating expenses:				
Research and development	$ 4,235,788	$ 4,499,751	$ (263,963)	(6)%
General and administrative	2,538,913	2,254,203	284,710	13%
Wind-down expenses	205,436	160,250	45,186	28%
Total operating expenses	$ 6,980,137	$ 6,914,204	$ 65,933	1%

Research and Development Expenses

Our research and development (R&D) expenses consist primarily of salaries and related personnel expenses, costs associated with clinical trials and regulatory submissions; costs associated with preclinical activities such as toxicology studies; costs associated with cell processing and process development; certain patent-related costs such as licensing; facilities- related costs such as depreciation; lab equipment and supplies. Clinical trial expenses include payments to vendors such as clinical research organizations, contract manufacturers, clinical trial sites, laboratories for testing clinical samples and consultants. Cumulative R&D costs incurred since we refocused our activities on developing cell-based therapeutics (fiscal years 2000 through the three months ended March 31, 2009) were approximately $97 million. Over this period, the majority of these cumulative costs were related to: (i) characterization of our proprietary HuCNS-SC cell, (ii) expenditures for toxicology and other preclinical studies, preparation and submission of applications to regulatory agencies to conduct clinical trials and obtaining regulatory clearance to initiate such trials, all with respect to our HuCNS-SC cells, (iii) preclinical studies and development of our human liver engrafting cells; and (iv) costs associated with cell processing and process development.

We use and manage our R&D resources, including our employees and facilities, across various projects rather than on a project-by-project basis for the following reasons. The allocations of time and resources change as the needs and priorities of individual projects and programs change, and many of our researchers are assigned to more than one project at any given time. Furthermore, we are exploring multiple possible uses for each of our proprietary cell types, so much of our R&D effort is complementary to and supportive of each of these projects. Lastly, much of our R&D effort is focused on manufacturing processes, which can result in process improvements useful across cell types. We also use external service providers to assist in the conduct of our clinical trials, to manufacture certain of our product candidates and to provide various other R&D related products and services. Many of these costs and expenses are complementary to and supportive of each of our programs. Because we do not have a development collaborator for any of our product programs, we are currently responsible for all costs incurred with respect to our product candidates.

R&D expense totaled approximately $4,236,000 in the first three months of 2009, as compared to $4,500,000 for the same period in 2008. The decrease of approximately $264,000, or 6%, from 2008 to 2009 was primarily attributable to a decrease in expenses for external services, including expenses related to manufacturing and testing of our cells and for our six-patient Phase I clinical trial for NCL, which was completed in January 2009.

At March 31, 2009, we had 43 full-time employees working in research and development and laboratory support services as compared to 47 at March 31, 2008.

General and Administrative Expenses

General and administrative (G&A) expenses totaled approximately $2,539,000 in the first three months of 2009, compared with $2,254,000 for the same period in 2008. The increase of approximately $285,000, or 13%, from 2008 to 2009 was primarily attributable to an increase in external services of approximately $209,000. This increase was mainly due to approximately $544,000 in professional fees incurred in the SCS assets acquisition, which was partially offset by lower expenses for other legal and other external services of approximately $335,000. The increase in G&A expenses was also due to an increase of approximately $111,000 in stock based compensation expense. These increased expenses, were partially offset by a decrease in other operating expenses of approximately $35,000.

Wind-down Expenses

In 1999, in connection with exiting our former research facility in Rhode Island, we created a reserve for the estimated lease payments and operating expenses related to it. The reserve has been re-evaluated and adjusted based on assumptions relevant to real estate market conditions and the estimated time until we could either fully sublease, assign or sell our remaining interests in the property. The reserve was approximately $5,513,000 at December 31, 2008. For the three-month period ending March 31, 2009, payments net of subtenant income of approximately $331,000 were recorded against this reserve. At March 31, 2009, we re-evaluated the estimate and adjusted the reserve to approximately $5,337,000 by recording in aggregate, additional wind-down expenses of approximately $206,000. For the same period in 2008, we recorded against this reserve, actual expenses of approximately $331,000 and at March 31, 2008 after re-evaluating the estimate, an additional $160,000 to adjust the reserve. Expenses for this facility will fluctuate based on changes in tenant occupancy rates and other operating expenses related to the lease. Even though it is our intent to sublease, assign, sell, or otherwise divest ourselves of our interests in the facility at the earliest possible time, we cannot determine with certainty a fixed date by which such events will occur. In light of this uncertainty, based on estimates, we will periodically re-evaluate and adjust the reserve, as necessary. See Note 4 “Wind-down expenses,” in the Notes to condensed consolidated financial statements of Part I, Item 1 of this Form 10-Q for further information.

Other Income (Expense)

Other expense totaled approximately $2,358,000 in the three months ended March 31, 2009, compared with other income of $352,000 for the same period in 2008.

	2009	2008	Change in 2009 versus 2008	
			$	%
Other income (expense):				
Gain on sale of marketable securities	$ 397,866	$ —	397,866	*
Change in fair value of warrant liability	(2,755,448)	—	(2,755,448)	*
Interest income	41,947	383,665	(341,718)	(89)%
Interest expense	(28,175)	(28,191)	16	*
Other expense, net	(14,210)	(3,609)	(10,601)	294%
Total other income (expense)	$(2,358,020)	$351,865	$(2,709,885)	*

* Calculation is not meaningful.

Gain on Sale of Marketable Equity Securities

In the first quarter of 2009, we sold in aggregate 2,900,000 shares of ReNeuron and received proceeds of approximately $510,000. We recognized a realized gain of approximately $398,000 for the quarter. We owned 1,921,424 ordinary shares of ReNeuron at March 31, 2009.

Change in fair value of warrant liability

In connection with our financing in November 2008, we issued warrants to purchase in aggregate 10,344,828 shares of common stock at an exercise price of $2.30 per share and recorded the fair value of these warrants as a liability. The fair value of the warrant liability is revalued at the end of each reporting period, with the change in fair value of the warrant liability recorded as a gain or loss in our Consolidated Statement of Operations. We used the Black-Scholes option pricing model to estimate the fair value of these warrants and in using this model, we make certain assumptions about risk-free interest rates, dividend yields, volatility and expected term of the warrants. See Note 7 “Warrant Liability” in the Notes to condensed consolidated financial statements of Part I, Item 1 of this Form 10-Q for further information.

	At March 31, 2009	At December 31, 2008	Change in Fair Value
Fair value of warrant liability	$11,195,379	$8,439,931	$2,755,448

Interest Income

Interest income totaled approximately $42,000 in the first three months of 2009 and $384,000 for the same period in 2008. Interest income in 2009 was lower compared to 2008 primarily as a result of lower average yield on investment balances.

Interest Expense

Interest expense for the three months ended March 31, 2009 was approximately $28,000, the same as in the first three months in 2008. Interest expense is for outstanding debt and capital lease balances. See Note 6 “Commitment and Contingencies,” in the notes to condensed consolidated financial statements of Part I, Item 1 of this Form 10-Q for further information.

Liquidity and Capital Resources

Since our inception, we have financed our operations through the sale of common and preferred stock, the issuance of long-term debt and capitalized lease obligations, revenue from collaborative agreements, research grants, license fees, and interest income.

	March 31, 2009	December 31, 2008	Change $	Change %
Cash, cash equivalents and marketable debt securities	$34,957,056	$34,037,775	$919,281	3%

In summary, our cash flows were:

	Three months ended March 31,		Change in 2009 Versus 2008	
	2009	2008	$	%
Net cash used in operating activities	$(5,781,631)	$ (7,291,366)	$ 1,509,735	(21)%
Net cash provided by investing activities	$ 2,920,314	$10,179,321	$(7,259,007)	(71)%
Net cash (used in) provided by financing activities	$ 6,875,383	$ (36,773)	$ 6,912,156	*%

* Calculation is not meaningful.

Net Cash Used in Operating Activities

Net cash used in operating activities in the first three months of 2009 was approximately $5,782,000, 21% lower than the $7,291,000 used in the first three months of 2008. Cash used in operating activities is primarily driven by our net loss but operating cash flows differ from net loss due to non-cash charges or differences in the timing of cash flows. The decrease in cash used in operating activities in 2009 as compared to 2008 was primarily attributable to the timing of cash payments and receipts for various operating assets and liabilities such as accounts payable, accrued expenses, and accounts receivable.

Net Cash Provided by Investing Activities

The decrease of approximately $7,259,000 from 2008 to 2009 for net cash provided by investing activities, was primarily attributable to a higher number of marketable debt securities maturing in the first three months of 2008 as compared to the similar period in 2009.

Net Cash (Used in) Provided by Financing Activities

The increase from 2008 to 2009 of approximately $6,912,000 for net cash (used in) provided by financing activities was primarily attributable to net proceeds of approximately $6,645,000 from the sale of approximately 3,325,000 shares of common stock at an

average price of $2.10 per share in the three months ended March 31, 2009. These shares were sold under our sales agreement with Cantor Fitzgerald & Co. ("Cantor").

Listed below are key financing transactions entered into by us in the last three years:

- Through May 5, 2009, we have sold a total of 9,500,000 shares of common stock under our sales agreement with Cantor. These shares were sold at an average price of $2.07 per share for gross proceeds of approximately $19,674,000. We entered into this sales agreement in December 2006 and filed a Prospectus Supplement announcing the agreement. Under the terms of the agreement, up to 10,000,000 shares may be sold from time to time under a shelf registration statement and Cantor is paid compensation equal to 5.0% of the gross proceeds.
- In November 2008, we sold 13,793,104 units to institutional investors at a price of $1.45 per unit, for gross proceeds of $20,000,000. The units, each of which consisted of one share of common stock and a warrant to purchase 0.75 shares of common stock at an exercise price of $2.30 per share, were offered as a registered direct offering under an effective shelf registration statement previously filed with and declared effective by the Securities and Exchange Commission. We received total proceeds net of offering expenses and placement agency fees of approximately $18,637,000.
- In April 2007, a warrant issued as part of our June 2004 financing was exercised to purchase an aggregate of 575,658 shares of our common stock at $1.90 per share. We issued 575,658 shares of our common stock and received proceeds of approximately $1,094,000.
- In April 2006, we sold 11,750,820 shares of our common stock to institutional investors at a price of $3.05 per share, for gross proceeds of approximately $35,840,000. The shares were offered as a registered direct offering under an effective shelf registration statement previously filed with and declared effective by the Securities and Exchange Commission. We received total proceeds, net of offering expenses and placement agency fees, of approximately $33,422,000. No warrants were issued as part of this financing transaction.
- In March 2006, a warrant issued as part of our June 2004 financing was exercised to purchase an aggregate of 526,400 shares of our common stock at $1.89 per share. We issued 526,400 shares of our common stock and received proceeds of approximately $995,000.

We have incurred significant operating losses and negative cash flows since inception. We have not achieved profitability and may not be able to realize sufficient revenue to achieve or sustain profitability in the future. We do not expect to be profitable in the next several years, but rather expect to incur additional operating losses. We have limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain our product development efforts, for acquisition of technologies and intellectual property rights, for preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, for general and administrative expenses and other working capital requirements. We rely on cash balances and proceeds from equity and debt offerings, proceeds from the transfer or sale of our intellectual property rights, equipment, facilities or investments, and government grants and funding from collaborative arrangements, if obtainable, to fund our operations.

We intend to pursue opportunities to obtain additional financing in the future through equity and debt financings, grants and collaborative research arrangements. On June 25, 2008 we filed with the SEC a universal shelf registration statement, declared effective July 18, 2008, which permits us to issue up to $100 million worth of registered debt and equity securities. Under this effective shelf registration, we have the flexibility to issue registered securities, from time to time, in one or more separate offerings or other transactions with the size, price and terms to be determined at the time of issuance. Registered securities issued using this shelf may be used to raise additional capital to fund our working capital and other corporate needs, for future acquisitions of assets, programs or businesses, and for other corporate purposes. As of May 5, 2009, we had approximately $65 million under our universal shelf registration statement available for issuing debt or equity securities; approximately $24 million of this $65 million has been reserved for the potential exercise of the warrants issued in connection with our November 2008 financing.

The source, timing and availability of any future financing will depend principally upon market conditions, interest rates and, more specifically, on our progress in our exploratory, preclinical and future clinical development programs. Funding may not be available when needed — at all, or on terms acceptable to us. Lack of necessary funds may require us, among other things, to delay, scale back or eliminate some or all of our research and product development programs, planned clinical trials, and/or our capital expenditures or

to license our potential products or technologies to third parties. In addition, the decline in economic activity, together with the deterioration of the credit and capital markets, could have an adverse impact on potential sources of future financing

Commitments

See Note 6, “Commitments and Contingencies” in the notes to condensed consolidated financial statements of Part I, Item 1 of this Form 10-Q for further information.

Off-Balance Sheet Arrangements

We have certain contractual arrangements that create potential risk for us and are not recognized in our Consolidated Balance Sheets. Discussed below are those off-balance sheet arrangements that have or are reasonably likely to have a material current or future effect on our financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources.

Operating Leases

We lease various real properties under operating leases that generally require us to pay taxes, insurance, maintenance, and minimum lease payments. Some of our leases have options to renew.

We entered into and amended a lease agreement for an approximately 68,000 square foot facility located at the Stanford Research Park in Palo Alto, California. At March 31, 2009, we had a space-sharing agreement covering approximately 10,451 square feet of this facility. We receive base payments plus a proportionate share of the operating expenses based on square footage over the term of the agreement. We expect to receive, in aggregate, approximately $457,000 as part of the space-sharing agreement for the remainder of 2009. As a result of the above transactions, our estimated net cash outlay for rent will be approximately $2,400,000 for the remainder of 2009.

We continue to have outstanding obligations in regard to our former facilities in Lincoln, Rhode Island. In 1997, we had entered into a fifteen-year lease for a scientific and administrative facility in a sale and leaseback arrangement. The lease includes escalating rent payments. We expect to pay approximately $878,000 in operating lease payments and estimated operating expenses of approximately $458,000, before receipt of sub-tenant income, for the remainder of 2009. We expect to receive, in aggregate, approximately $130,000 in sub-tenant rent and operating expense for the remainder of 2009. As a result of the above transactions, our estimated cash outlay net of sub-tenant rent for the facility will be approximately $1,206,000 for the remainder of 2009.

With the exception of leases discussed above, we have not entered into any off balance sheet financial arrangements and have not established any special purpose entities. We have not guaranteed any debts or commitments of other entities or entered into any options on non-financial assets.

Contractual Obligations

During the first three months of 2009, we believe that there have been no significant changes in our payments due under contractual obligations, as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2008.

Recent Accounting Pronouncements

In April 2009, the Financial Accounting Standards Board (FASB) issued the following new accounting standards:

- FASB Staff Position No. 107-1 (FSP 107-1) and Accounting Principles Board (APB) Opinion No. 28-1 (APB 28-1), I*nterim Disclosures about Fair Value of Financial Instruments*, which amends FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments* (SFAS 107) and APB Opinion No. 28, *Interim Financial Reporting* (APB 28), to require disclosures about the fair value of financial instruments for interim as well as in annual financial statements. FSP 107-1 and APB 28-1 will be effective for interim reporting periods ending after June 15, 2009. We do not expect the adoption of this accounting standard will not have a material impact on our consolidated financial statements.

- FASB Staff Position No. FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly* (FSP 157-4). FSP 157-4 provides additional guidance for estimating fair value in accordance with Statement of Financial Accounting Standards No. 157, *Fair Value Measurements*, when the volume and level of activity for the asset or liability have significantly decreased. FSP 157-4 will be applied prospectively and will be effective for interim and annual reporting periods ending after June 15, 2009. We do not expect the adoption of FSP 157-4 to have a significant impact on our consolidated financial statements
- FASB Staff Position No. 115-2, (FSP 115-2) and FASB Staff Position No. 124-2 (FSP124-2), *Recognition and Presentation of Other-Than-Temporary Impairments*, which amends the other-than-temporary impairment guidance for debt and equity securities. FSP 115-2 and FSP 124-2 shall be effective for interim and annual reporting periods ending after June 15, 2009. We do not expect the adoption of FSP 115-2 and FSP 124-2 to have a significant impact on our consolidated financial statements.
- FASB Staff Position No. FAS 141(R)-1, *Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies* (FSP 141 (R)-1). FSP 141 (R)–1 amends and clarifies FASB statement No. 141 (R), *Business Combinations* (SFAS 141 (R), to address issues related to the recognition and measurement of assets and liabilities arising from contingencies in a business combination. Assets and liabilities assumed in a business combination that arise from contingencies should be recognized at fair value on the acquisition date if fair value can be reasonably estimated during the measurement period. If fair value cannot be reasonably estimated, companies should typically account for the acquired contingencies using existing guidance. We adopted SFAS 141(R) and FSP 141(R)-1 on January 1, 2009. We expect SFAS 141(R) and FSP 141(R) -1 will have an impact on our consolidated financial statements; however, the nature and magnitude of the impact will depend upon the nature, terms and size of the acquisition we consummate after the effective date.

In April 2008, the FASB issued FASB Staff Position No. 142-3, *Determination of the Useful Life of Intangible Assets (*FSP 142-3). FSP 142-3 amends the factors that must be considered in developing renewal or extension assumptions used to determine the useful life over which to amortize the cost of a recognized intangible asset under SFAS No. 142, *Goodwill and Other Intangible Assets* (SFAS 142). FSP 142-3 is effective for fiscal years beginning after December 15, 2008. The adoption of FSP142-3 did not have a material impact on our consolidated financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our market risks at March 31, 2009 have not changed materially from those discussed in Item 7A of our Form 10-K for the year ended December 31, 2008 on file with the U.S. Securities and Exchange Commission.

See also Note 2, “Financial Assets,” in the notes to condensed consolidated financial statements in Part I, Item 1 of this Form 10-Q.

ITEM 4. CONTROLS AND PROCEDURES

In response to the requirement of the Sarbanes-Oxley Act of 2002, as of the end of the period covered by this report, our chief executive officer and chief financial officer, along with other members of management, reviewed the effectiveness of the design and operation of our disclosure controls and procedures. Such controls and procedures are designed to ensure that information required to be disclosed in the Company’s Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to management, including the chief executive officer and the chief financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, the chief executive officer and chief financial officer have concluded that the Company’s disclosure controls and procedures are effective.

During the most recent quarter, there were no changes in internal controls over financial reporting that occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, these controls of the Company.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In July 2006, we filed suit against Neuralstem, Inc., in the Federal District Court for the District of Maryland, alleging that Neuralstem's activities violate claims in four of the patents we exclusively licensed from NeuroSpheres. Neuralstem has filed a motion for dismissal or summary judgment in the alternative, citing Title 35, Section 271(e)(1) of the United States Code, which says that it is not an act of patent infringement to make, use or sell a patented invention "solely for uses reasonably related to the development and submission of information" to the FDA. Neuralstem argues that because it does not have any therapeutic products on the market yet, the activities complained of fall within the protection of Section 271(e)(1) — that is, basically, that the suit is premature. This issue will be decided after discovery is complete. Subsequent to filing its motion to dismiss, in December 2006, Neuralstem petitioned the U.S. Patent and Trademark Office (PTO) to reexamine two of the patents in our infringement action against Neuralstem, namely U.S. Patent No. 6,294,346 (claiming the use of human neural stem cells for drug screening) and U.S. Patent No. 7,101,709 (claiming the use of human neural stem cells for screening biological agents). In April 2007, Neuralstem petitioned the PTO to reexamine the remaining two patents in the suit, namely U.S. Patent No. 5,851,832 (claiming methods for proliferating human neural stem cells) and U.S. Patent No. 6,497,872 (claiming methods for transplanting human neural stem cells). These requests were granted by the PTO and, in June 2007, the parties voluntarily agreed to stay the pending litigation while the PTO considers these reexamination requests. In October 2007, Neuralstem petitioned the PTO to reexamine a fifth patent, namely U.S. Patent No. 6,103,530, which claims a culture medium for proliferating mammalian neural stem cells. In April 2008, the PTO upheld the '832 and '872 patents, as amended, and issued Notices of Intent to Issue an Ex Parte Reexamination Certificate for both. In August 2008, the PTO upheld the '530 patent, as amended, and issued a Notice of Intent to Issue an Ex Parte Reexamination Certificate. The remaining two patents are still under review by the PTO.

In May 2008, we filed a second patent infringement suit against Neuralstem and its two founders, Karl Johe and Richard Garr. In this suit, which we filed in the Federal District Court for the Northern District of California, we allege that Neuralstem's activities infringe claims in two patents we exclusively license from NeuroSpheres, specifically U.S. Patent No. 7,361,505 (claiming composition of matter of human neural stem cells derived from any source material) and U.S. Patent No. 7,115,418 (claiming methods for proliferating human neural stem cells). In addition, we allege various state law causes of action against Neuralstem arising out of its repeated derogatory statements to the public about our patent portfolio. Also in May 2008, Neuralstem filed suit against us and NeuroSpheres in the Federal District Court for the District of Maryland seeking a declaratory judgment that the '505 and '418 patents are either invalid or are not infringed by Neuralstem and that Neuralstem has not violated California state law. In August 2008, the California court transferred our lawsuit against Neuralstem to Maryland for resolution on the merits. We anticipate that the Maryland District Court will consolidate these actions in some manner prior to trial.

ITEM 1A. RISK FACTORS

This quarterly report on Form 10-Q contains forward looking statements that involve risks and uncertainties. Our business, operating results, financial performance, and share price may be materially adversely affected by a number of factors, including but not limited to the following risk factors, any one of which could cause actual results to vary materially from anticipated results or from those expressed in any forward-looking statements made by us in this quarterly report on Form 10-Q or in other reports, press releases or other statements issued from time to time. Additional factors that may cause such a difference are set forth elsewhere in this quarterly report on Form 10-Q

Risks Related to our Business

Any adverse development relating to our HuCNS-SC product candidate, such as a significant clinical trial failure, could substantially depress our stock price and prevent us from raising additional capital.

At present our ability to progress as a company is significantly dependent on a single therapeutic product candidate, our HuCNS-SC cells (purified human neural stem cells), and on early stage clinical trials. Any clinical, regulatory or other development that significantly delays or prevents us from completing any of our trials, any material safety issue or adverse side effect to any study participant in any of these trials, or the failure of these trials to show the results expected would likely depress our stock price significantly and could prevent us from raising the substantial additional capital we will need to further develop our cellular technologies. Moreover, any material adverse occurrence in our first clinical trials could substantially impair our ability to initiate clinical trials to test our HuCNS-SC cells in other potential indications. This, in turn, could adversely impact our ability to raise

additional capital and pursue our planned research and development efforts in our CNS and liver therapeutic programs and in our programs to develop non-therapeutic applications for our cell technologies.

We have limited capital resources and we may not obtain the significant additional capital needed to sustain our research and development efforts.

We have limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain our product development efforts, acquire businesses, technologies and intellectual property rights which may be important to our business, continue preclinical and clinical testing of our investigative products, pursue regulatory approvals, acquire capital equipment, laboratory and office facilities, establish production capabilities, maintain and enforce our intellectual property portfolio, and support our general and administrative expenses and other working capital requirements. In addition, we will require additional capital resources to continue to develop and grow our operations related to developing cell-based research tools and any other non-therapeutic applications of our cell technologies. We rely on cash reserves and proceeds from equity and debt offerings, proceeds from the transfer, license, lease, or sale of our intellectual property rights, equipment, facilities, or investments, and government grants and funding from collaborative arrangements, if obtainable, to fund our operations.

We intend to pursue opportunities for additional fundraising in the future through equity or debt financings, licensing of our intellectual property, corporate alliances or combinations, grants or collaborative research arrangements, or any combination of these. However, external financing in the current financial environment may be particularly difficult, and the source, timing and availability of any future fundraising will depend principally upon market conditions, interest rates and, more specifically, on progress in our research, preclinical and clinical development programs and the advancement of our programs to develop non-therapeutic applications of our cell technologies. Funding may not be available when needed — at all or on terms acceptable to us. While we actively manage our programs and resources in order to conserve cash between fundraising opportunities, our existing capital resources may not be sufficient to fund our operations beyond the next twelve months. If we exhaust our cash reserves and are unable to realize adequate additional fundraising, we may be unable to meet operating obligations and be required to initiate bankruptcy proceedings or delay, scale back or eliminate some or all of our research and product development programs.

Our product development programs are based on novel technologies and are inherently risky.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of these therapies creates significant challenges in regard to product development and optimization, manufacturing, government regulation, third party reimbursement, and market acceptance. For example, the pathway to regulatory approval for cell-based therapies, including our product candidates, may be more complex and lengthy than the pathway for conventional drugs. Our programs to develop cell-based research tools are also focused on cell technologies and products supporting cellular research, all of which are novel to some degree. Like biological products in general, stem cell technologies, including non-therapeutic applications, are challenging to manufacture and control. These challenges may prevent us from developing and commercializing products on a timely or profitable basis or at all.

Our technology is at an early stage of discovery and development, and we may fail to develop any commercially acceptable or profitable products.

We have incurred significant operating losses and negative cash flows since inception. We have not achieved profitability and may not be able to realize sufficient revenue to achieve or sustain profitability in the future. We have yet to develop any products that have been approved for marketing, and we do not expect to become profitable within the next several years, but rather expect to incur additional and increasing operating losses. Before commercializing any medical product, we will need to obtain regulatory approval from the FDA or from equivalent foreign agencies after conducting extensive preclinical studies and clinical trials that demonstrate that the product candidate is safe and effective. Except for the NCL trial we completed at Oregon Health & Science University (OHSU), we have had no experience conducting human clinical trials. We expect that none of our cell-based therapeutic product candidates will be commercially available for several years, if at all.

While the FDA has approved our IND to initiate a Phase I clinical trial for PMD, there can be no assurance that this clinical trial will be initiated, be completed or result in a successful outcome.

There can be no assurance that our Phase I clinical trial of our proprietary HuCNS-SC product candidate in NCL will result in a successful outcome. We may elect to delay or discontinue other studies or clinical trials based on unfavorable results. Any product developed from, or based on, cellular technologies may fail to:

- survive and persist in the desired location;
- provide the intended therapeutic benefit;
- engraft into existing tissue in the desired manner; or
- achieve therapeutic benefits equal to, or better than, the standard of treatment at the time of testing.

In addition, our planned therapeutic products may cause unanticipated or undesirable side effects. Results of preclinical research in animals may not be indicative of future clinical results in humans.

Ultimately if regulatory authorities do not approve our products or if we fail to maintain regulatory compliance, we would be unable to commercialize our therapeutic products, and our business and results of operations would be harmed. Even if we do succeed in developing products, we will face many potential obstacles such as the need to develop or obtain manufacturing, marketing and distribution capabilities. Furthermore, because transplantation of cells is a new form of therapy, the marketplace may not accept any products we may develop.

Moreover, because our cell-based therapeutic products will be derived from tissue of individuals other than the patient (that is, they will be “non-self” or “allogeneic” transplant products), patients will likely require the use of immunosuppressive drugs. While immunosuppression is now standard in connection with allogeneic transplants of various kinds, such as heart or liver transplants, long-term maintenance on immunosuppressive drugs can result in complications such as infection, cancer, cardiovascular disease, and renal dysfunction. An immunosuppression regimen was used with our therapeutic product candidate in our Phase I clinical trial for NCL, and is included in the proposed trial protocol for our planned PMD trial.

As for our cell-based research tools, our products are still largely under development or newly marketed. Sales of SC Proven media by our SCS subsidiaries have been limited, and there can be no assurance that these sales will increase. Competitive products exist and market acceptance of our products is uncertain.

Our success will depend in large part on our ability to develop and commercialize products that treat diseases other than neuronal ceroid lipofuscinosis (Batten disease) and Pelizeaus-Merzbacher Disease (PMD).

Although we have initially focused on evaluating our neural stem cell product for the treatment of infantile and late infantile NCL (Batten disease) and for Pelizeaus-Merzbacher Disease, these diseases are rare and the markets for treating these diseases are small. Accordingly, even if we obtain marketing approval for our HuCNS-SC product candidate for infantile and late infantile NCL or for PMD, in order to achieve profitability, we will likely need to obtain approval to treat additional diseases that present more significant market opportunities.

Acquisitions of companies, businesses or technologies may substantially dilute our stockholders and increase our operating losses.

We may make acquisitions of businesses, technologies or intellectual property rights or otherwise modify our business model in ways we believe to be necessary, useful or complementary to our current product development efforts and cell-based therapeutics business. For example, on April 1, 2009 we acquired the operating assets and liabilities of SCS. Any such acquisition or change in business activities may require assimilation of the operations, products or product candidates and personnel of the acquired business and the training and integration of its employees, and could substantially increase our operating costs, without any offsetting increase in revenue. Acquisitions may not provide the intended technological, scientific or business benefits and could disrupt our operations and divert our limited resources and management's attention from our current operations, which could harm our existing product development efforts. We would likely issue equity securities to pay for any other future acquisitions. The issuance of equity securities for an acquisition could be substantially dilutive to our stockholders. In addition, our results of operations may suffer because of acquisition-related costs or the post-acquisition costs of funding the development of an acquired technology or product candidates or operation of the acquired business, or due to amortization or impairment costs for acquired goodwill and other intangible assets. Any investment made in, or funds advanced to, a potential acquisition target could also significantly adversely affect our results of operation and could further reduce our limited capital resources. Any acquisition or action taken in anticipation of a potential acquisition or other change in business activities could substantially depress the price of our stock.

Costs and disruptions from the integration and management of the acquired SCS business may impair our business.

On April 1, 2009, we acquired the operating assets and liabilities of SCS, including its former subsidiaries in England and Australia. To realize the anticipated benefits of this acquisition, we must successfully combine and integrate the separate organizations and operations of the two companies. The combination of two independent companies is frequently a complex, costly and time-consuming process. Therefore we expect to devote a significant amount of our management's time and attention to integrating the operations of the two companies. We may have difficulty maintaining employee morale and retaining key employees, consultants and collaborators as we take steps to integrate the cultures of the two organizations. We may also encounter incompatible methods, practices or policies or unanticipated difficulties integrating information technology, communications and other systems used by the two companies. Managing the integration of the acquired SCS business into our consolidated operations may also entail numerous operational, legal and financial risks and uncertainties, including:

- incurrence or assumption of material liabilities, including unanticipated ones;
- assumption of pre-existing contractual obligations and obligations owed by the acquired SCS business to customers and research collaborators, which may not be profitable to our business or deemed consistent with our development plans;
- diversion of resources and management attention from our existing businesses and technologies;
- inability to retain key employees of any acquired businesses or hire enough qualified personnel to staff any new or expanded operations;
- impairment or loss of relationships with key customers or collaborators; and
- exposure to new and unanticipated federal, state, local, and foreign legal requirements, which may impact our research and development programs on a consolidated basis.

Our failure to address these risks and uncertainties successfully in the future could harm our business and prevent our achievement of anticipated growth, which could have an adverse effect on our financial condition and results of operations.

We have payment obligations resulting from real property owned or leased by us in Rhode Island, which diverts funding from our research and development activities.

Prior to our reorganization in 1999 and the consolidation of our business in California, we carried out our former encapsulated cell therapy programs in Lincoln, Rhode Island, where we also had our administrative offices. Although we have vacated the Rhode Island facilities, we remain obligated to make lease payments and payments for operating costs for our former science and administrative facility, which we have leased through June 30, 2013. These costs, before sub-tenant rental income, amounted to approximately $1,825,000 in 2008; our rent payments will increase over the term of the lease, and our operating costs may increase as well. In addition to these costs of our former science and administrative facility, we are obligated to make debt service payments and payments for operating costs of approximately $440,000 per year for our former encapsulated cell therapy pilot manufacturing facility, which we

own. We have currently subleased a portion of the science and administrative facility, and we are seeking to sublease the remaining portion, but we cannot be sure that we will be able to keep any part of the facility subleased for the duration of our obligation. We are currently seeking to sublease the pilot manufacturing facility, but may not be able to sublease or sell the facility in the future. These continuing costs significantly reduce our cash resources and adversely affect our ability to fund further development of our cellular technologies. In addition, changes in real estate market conditions and assumptions regarding the length of time it may take us to either fully sublease, assign or sell our remaining interest in the our former research facility in Rhode Island may have a significant impact on and cause large variations in our quarter to quarter results of operations. In 1999, in connection with exiting our former research facility in Rhode Island, we created a reserve for the estimated lease payments and operating expenses related to it. The reserve is periodically re-evaluated and adjusted based on assumptions relevant to real estate market conditions and the estimated time until we can either, fully sublease, assign or sell our remaining interests in the property. At March 31, 2009 , the reserve was $5,337,000. For the year 2008, we incurred $1,293,000 in operating expenses net of sub-tenant income for this facility. Expenses for this facility will fluctuate based on changes in tenant occupancy rates and other operating expenses related to the lease. Even though it is our intent to sublease, assign, sell, or otherwise divest ourselves of our interests in the facility at the earliest possible time, we cannot determine with certainty a fixed date by which such events will occur. In light of this uncertainty, based on estimates, we will periodically re-evaluate and adjust the reserve, as necessary, and we may make significant adverse adjustments to the reserve in the future.

We may be unable to obtain partners to support our cell-based product development efforts when needed to commercialize our technologies.

Equity and debt financings alone may not be sufficient to fund the cost of developing our cellular technologies, and we may need to rely on partnering or other arrangements to provide financial support for our cell-based discovery and development efforts. In addition, in order to successfully develop and commercialize our technologies, we may need to enter into various arrangements with corporate sponsors, pharmaceutical companies, universities, research groups, and others. While we have engaged, and expect to continue to engage, in discussions regarding such arrangements, we have not reached any agreement, and we may fail to obtain any such agreement on terms acceptable to us. Even if we enter into such arrangements, we may not be able to satisfy our obligations under them or renew or replace them after their original terms expire. Furthermore, these arrangements may require us to grant rights to third parties, such as exclusive marketing rights to one or more products, may require us to issue securities to our collaborators and may contain other terms that are burdensome to us or result in a decrease in our stock price.

If we are unable to protect our patents and proprietary rights, our business, financial condition and results of operations may be materially harmed.

We either own or exclusively license a number of patents and pending patent applications related to various stem and progenitor cells, including human neural stem cell cultures, as well as methods of deriving and using them. The process of obtaining patent protection for products such as those we propose to develop is highly uncertain and involves complex and continually evolving factual and legal questions. The governmental authorities that consider patent applications can deny or significantly reduce the patent coverage requested in an application either before or after issuing the patent. For example, under the procedures of the European Patent Office, third parties may oppose our issued European patents during the relevant opposition period. These proceedings and oppositions could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. In the United States, third parties may seek to invalidate or render unenforceable issued patents through a U.S. PTO reexamination process or through the courts; currently two of our patents are the subject of a reexamination proceeding and six of our patents are the subject of litigation. In addition, changes to the laws protecting intellectual property rights could adversely impact the perceived or actual value of our Company. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, whether any of our issued patents will be invalidated or restricted, whether any existing or future patents will provide sufficient protection or significant commercial advantage, or whether others will circumvent these patents, whether or not lawfully. In addition, our patents may not afford us adequate protection from competing products. Moreover, because patents issue for a limited term, our patents may expire before we can commercialize a product covered by the issued patent claims or before we can utilize the patents profitably. Some of our most important patents begin to expire in 2015.

If we learn of third parties who infringe our patent rights, we may decide to initiate legal proceedings to enforce these rights. Patent litigation, including the pending litigation to which we are a party, is inherently unpredictable and highly risky and may result in unanticipated challenges to the validity or enforceability of our intellectual property, antitrust claims or other claims against us, which could result in the loss of these intellectual property rights. Litigation proceedings can be very time-consuming for management

and are also very costly and the parties we bring actions against may have significantly greater financial resources than our own. We may not prevail in these proceedings and if we do not prevail we could be liable for damages as well as the costs and attorney fees of our opponents.

Proprietary trade secrets and unpatented know-how are also important to our research and development activities. We cannot be certain that others will not independently develop the same or similar technologies on their own or gain access to our trade secrets or disclose such technology or that we will be able to meaningfully protect our trade secrets and unpatented know-how. We require our employees, consultants and significant scientific collaborators and sponsored researchers to execute confidentiality agreements upon the commencement of an employment or consulting relationship with us. These agreements may, however, fail to provide meaningful protection or adequate remedies for us in the event of unauthorized use, transfer or disclosure of such information or technology.

If we are unable to obtain necessary licenses to third-party patents and other rights, we may not be able to commercially develop our expected products.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have received patents relating to cell therapy, stem and progenitor cells and other technologies potentially relevant to, or necessary for, both our expected products and for the commercialization of cell-based research tools.. We cannot predict which, if any, of these applications will issue as patents or how many of these issued patents will be found valid and enforceable. There may also be existing issued patents which we are currently unaware of which would be infringed by the commercialization of one or more of our product candidates. If so, we may be prevented from commercializing these products unless the third party is willing to grant a license to us. We may be unable to obtain licenses to the relevant patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative non-infringing technology. If we are unable to obtain such licenses or develop non-infringing technology at a reasonable cost, our business could be significantly harmed. Also, any infringement lawsuits commenced against us may result in significant costs, divert our management's attention and result in an award against us for substantial damages, or potentially prevent us from continuing certain operations.

We are aware of intellectual property rights held by third parties that relate to products or technologies we are developing. For example, some aspects of our cell-based therapeutic product candidates involve the use of growth factors, antibodies and other reagents that may, in certain cases, be the subject of third party rights. In addition, some of our non-therapeutic applications include the use of embryonic stem cell and iPS technologies, which may be the subject of other third party rights. Before we commercialize any product using these growth factors, cells, antibodies or reagents, we may need to obtain license rights from third parties or use alternative growth factors, cells, antibodies and reagents that are not then the subject of third party patent rights. We believe that the commercialization of our products as currently planned will not infringe these third party rights, or, alternatively, that we will be able to obtain necessary licenses or otherwise use alternative non-infringing technology. However, third parties may nonetheless bring suit against us claiming infringement. If we are unable to prove that our technology does not infringe their patents, or if we are unable to obtain necessary licenses or otherwise use alternative non-infringing technology, we may not be able to commercialize any products.

We have obtained rights from companies, universities and research institutions to technologies, processes and compounds that we believe may be important to the development of our products. These licensors, however, may cancel our licenses or convert them to non-exclusive licenses if we fail to use the relevant technology or otherwise breach these agreements. Loss of these licenses could expose us to the risk that our technology infringes the rights of third parties. We can give no assurance that any of these licenses will provide effective protection against our competitors.

We compete with companies that have significant advantages over us.

The market for therapeutic products to treat diseases of, or injuries to, the central nervous system (CNS) is large and competition is intense. The majority of the products currently on the market or in development are small molecule pharmaceutical compounds, and many pharmaceutical companies have made significant commitments to the CNS field. We believe cellular therapies, if proven safe and effective, will have unique properties that will make them desirable over small molecule drugs, none of which currently replace damaged tissue. However, any cell-based therapeutic to treat diseases of, or injuries to, the CNS is likely to face intense competition from the small molecule sector, biologics, as well as medical devices. We expect to compete with a host of companies, some of which are privately owned and some of which have resources far greater than ours.

In the liver field, there are no broad-based therapies for the treatment of liver disease at present. The primary therapy is liver transplantation, which is limited by the availability of matched donor organs. Liver-assist devices, when and if they become available,

could also be used to help patients while they await suitably matched organs for transplantation. Liver transplantation may remain the standard of care even if we successfully develop a cellular therapy. In addition, new therapies may become available before we successfully develop a cell-based therapy for liver disease.

In the cell-based tools market, there are a number of companies already supplying cells, media, reagents, and other research tools to both for-profit and non-profit researchers. Many of these suppliers have far greater resources than we do, including greater manufacturing capacity and experience, substantial capital resources, a dedicated sales and marketing force, and well established sales channels and customer relationships. If we are unable to develop a unique or competitive product offering, we may not be able to generate sufficient revenues to offset the costs of developing these non-therapeutic applications for our technologies.

Development of our technologies is subject to, and restricted by, extensive government regulation, which could impede our business.

Our research and development efforts, as well as any ongoing or future clinical trials, and the manufacturing and marketing of any products we may develop, will be 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. FDA and other legal and regulatory requirements applicable to the development and manufacture of the cells and cell lines required for our preclinical and clinical products could substantially delay or prevent us from producing the cells needed to initiate additional clinical trials. We or our collaborators may fail to obtain the necessary approvals to commence or continue clinical testing or to manufacture or market our potential products in reasonable time frames, if at all. In addition, the U.S. Congress and other legislative bodies may enact regulatory reforms or restrictions on the development of new therapies that could adversely affect the regulatory environment in which we operate or the development of any products we may develop.

We base our research and development on the use of human stem and progenitor cells obtained from human tissue, including fetal tissue. The U.S. federal and state governments and other jurisdictions impose restrictions on the acquisition and use of fetal tissue, including those incorporated in federal Good Tissue Practice, or GTP, regulations. These regulatory and other constraints could prevent us from obtaining cells and other components of our products in the quantity or quality needed for their development or commercialization, including the commercialization of certain cell-based research tools. These restrictions change from time to time and may become more onerous. Additionally, we may not be able to identify or develop reliable sources for the cells necessary for our potential products — that is, sources that follow all state and federal laws and guidelines for cell procurement. Certain components used to manufacture our stem and progenitor cell-based therapeutic product candidates will need to be manufactured in compliance with the FDA's Good Manufacturing Practices, or GMP. Accordingly, at least for our therapeutic programs, we will need to enter into supply agreements with companies that manufacture these components to GMP standards.

Noncompliance with applicable requirements both before and after approval, if any, can subject us, our third party suppliers and manufacturers, and our other collaborators to administrative and judicial sanctions, such as, among other things, warning letters, fines and other monetary payments, recall or seizure of products, criminal proceedings, suspension or withdrawal of regulatory approvals, interruption or cessation of clinical trials, total or partial suspension of production or distribution, injunctions, limitations on or the elimination of claims we can make for our products, and refusal of the government to enter into supply contracts or fund research, or delay in approving or refusal to approve new drug applications.

We are dependent on the services of key personnel.

We are highly dependent on the principal members of our management and scientific staff and some of our outside consultants, including the members of our scientific advisory board, our chief executive officer, our vice presidents, and the heads of key departments or functions within the company. Although we have entered into employment agreements with some of these individuals, they may terminate their agreements at any time. In addition, our operations are dependent upon our ability to attract and retain additional qualified scientific and management personnel. We may not be able to attract and retain the personnel we need on acceptable terms given the competition for experienced personnel among pharmaceutical, biotechnology and health care companies, universities and research institutions.

Our activities involve hazardous materials and experimental animal testing; improper handling of these animals and materials by our employees or agents could expose us to significant legal and financial penalties.

Our research and development activities involve the controlled use of test animals as well as hazardous chemicals and potentially hazardous biological materials such as human tissue. Their use subjects us to environmental and safety laws and regulations such as

those governing laboratory procedures, exposure to blood-borne pathogens, use of laboratory animals, and the handling of biohazardous materials. Compliance with current or future laws and regulations may be expensive and the cost of compliance could adversely affect us.

Although we believe that our safety procedures for using, handling, storing, and disposing of hazardous and potentially hazardous materials comply with the standards prescribed by applicable federal, state and local regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident or of any violation of these or future laws and regulations, the applicable federal, state, or local authorities could curtail our use of these materials; we could be liable for any civil damages that result, the cost of which could be substantial; and we could be subjected to substantial fines or penalties. In addition, any failure by us to control the use, disposal, removal, or storage, or to adequately restrict the discharge, or to assist in the cleanup, of hazardous chemicals or hazardous, infectious or toxic substances could subject us to significant liability. Any such liability could exceed our resources and could have a material adverse effect on our business, financial condition and results of operations. Moreover, an accident could damage our research and manufacturing facilities and operations and result in serious adverse effects on our business.

The development, manufacturing and commercialization of cell-based therapeutic products expose us to product liability claims, which could lead to substantial liability.

By developing and, ultimately, commercializing medical products, we are exposed to the risk of product liability claims. Product liability claims against us could result in substantial litigation costs and damage awards against us. We have obtained liability insurance that covers our clinical trials, and we will need to increase our insurance coverage if and when we begin commercializing products. We may not be able to obtain insurance on acceptable terms, if at all, and the policy limits on our insurance policies may be insufficient to cover our liability.

The manufacture of cell-based products is novel, highly regulated, critical to our business, and dependent upon specialized key materials.

The proliferation and manufacture of cell-based products are complicated and difficult processes, dependent upon substantial know-how and subject to the need for continual process improvements to be competitive. Our manufacturing experience is limited and the technologies are comparatively new. In addition, our ability to scale-up manufacturing to satisfy the various requirements of our planned clinical trials, such as GTP, GMP and release testing requirements, is unproven and uncertain. Manufacturing disruptions may occur and despite efforts to regulate and control all aspects of manufacturing, the potential for human or system failure remains. Manufacturing irregularities or lapses in quality control could have a serious adverse effect on our reputation and business, which could cause a significant loss of stockholder value. Many of the materials that we use to prepare our cell-based products are highly specialized, complex and available from only a limited number of suppliers or derived from a biological origin. At present, some of our material requirements are single sourced, and the loss of one or more of these sources may adversely affect our business if we are unable to obtain alternatives or alternative sources at all or upon terms that are acceptable to us.

Because health care insurers and other organizations may not pay for our products or may impose limits on reimbursements, our ability to become profitable could be adversely affected.

In both domestic and foreign markets, sales of potential therapeutic products are likely to depend in part upon the availability and amounts of reimbursement from third-party health care payor organizations, including government agencies, private health care insurers and other health care payors, such as health maintenance organizations and self-insured employee plans. There is considerable pressure to reduce the cost of therapeutic products. Government and other third party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products and by refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the FDA or other relevant authority has not granted marketing approval. Moreover, in some cases, government and other third party payors have refused to provide reimbursement for uses of approved products for disease indications for which the FDA or other relevant authority has granted marketing approval. Significant uncertainty exists as to the reimbursement status of newly approved health care products or novel therapies such as ours. Even if we obtain regulatory approval to market our products, we can give no assurance that reimbursement will be provided by such payors at all or without substantial delay or, if such reimbursement is provided, that the approved reimbursement amounts will be sufficient to enable us to sell products we develop on a profitable basis. Changes in reimbursement policies could also adversely affect the willingness of pharmaceutical companies to collaborate with us on the development of our cellular technologies. In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. We also expect that there will continue to be a number of federal and state proposals to implement government control over health care costs. Efforts to change regulatory and reimbursement standards are likely to continue in future legislative sessions. We do not know what legislative proposals federal or state governments will adopt or what actions federal, state or private payors for health care goods and services may take in response to such proposals or legislation. We cannot predict the effect of government control and health care reimbursement practices on our business.

Ethical and other concerns surrounding the use of stem or progenitor-based cell therapy may negatively affect regulatory approval or public perception of our product candidates, which could reduce demand for our products or depress our stock price.

The use of stem cells for research and therapy has been the subject of debate regarding related ethical, legal and social issues. Although these concerns have mainly been directed to the use of embryonic stem cells, which we presently are not developing as potential therapeutic product candidates, the distinction between embryonic and non-embryonic stem cells is frequently overlooked. Moreover, our use of human stem or progenitor cells from fetal sources might raise these or similar concerns. Negative public attitudes toward stem cell therapy could result in greater governmental regulation of stem cell therapies, which could harm our business. For example, concerns regarding such possible regulation could impact our ability to attract collaborators and investors. Also, existing regulatory constraints on the use of embryonic stem cells may in the future be extended to use of fetal stem cells, and these constraints might prohibit or restrict us from conducting research or from commercializing products. Existing and potential U.S. government regulation of embryonic tissue may lead researchers to leave the field of stem cell research or the country altogether, in order to assure that their careers will not be impeded by restrictions on their work. Similarly, these factors may induce graduate students to choose other fields less vulnerable to changes in regulatory oversight, thus exacerbating the risk that we may not be able to attract and retain the scientific personnel we need in face of the competition among pharmaceutical, biotechnology and health care companies, universities and research institutions for what may become a shrinking class of qualified individuals.

Restrictions on the use of human embryonic stem cells, including public and political opposition to the use of these cells, could harm our business.

Some of our research includes testing cells derived from embryonic tissue. While we are not developing human embryonic stem cells as potential therapeutic products, legal restrictions on the use of human embryonic stem cells could impede our ability to develop worthwhile non-therapeutic products for research. In addition, the use of these cells could give rise to ethical and social commentary adverse to us, which could harm the market price of our common stock. Additional government-imposed restrictions on the use of embryos or human embryonic stem cells in research and development could also cause an adverse effect on us by harming our ability to establish important partnerships or collaborations, delaying or preventing the development of certain non-therapeutic products, and causing a decrease in the price of our stock or by otherwise making it more difficult for us to raise additional capital. These risks could have unanticipated adverse consequences on our business, including on both our therapeutic and non-therapeutic programs.

Our corporate documents and Delaware law contain provisions that could make it difficult for us to be acquired in a transaction that might be beneficial to our stockholders.

Our board of directors has the authority to issue shares of preferred stock and to fix the rights, preferences, privileges, and restrictions of these shares without stockholder approval. These provisions in our corporate documents, along with certain provisions under Delaware law, may make it more difficult for a third party to acquire us or discourage a third party from attempting to acquire us, even if the acquisition might be beneficial to our stockholders.

Risks Related to the Securities Market

Our stock price has been, and will likely continue to be, highly volatile, which may negatively affect our ability to obtain additional financing in the future.

The market price per share of our common stock has been and is likely to continue to be highly volatile due to the risks and uncertainties described in this section of this Annual Report on Form 10-K, as well as other factors, including:

- our ability to develop and test our technologies;
- our ability to patent or obtain licenses to necessary technologies;
- conditions and publicity regarding the industry in which we operate, as well as the specific areas our product candidates seek to address;
- competition in our industry;
- economic and other external factors or other disasters or crises;
- price and volume fluctuations in the stock market at large that are unrelated to our operating performance; and
- comments by securities analysts, or our failure to meet market expectations.

Over the two-year period ended March 31, 2009, the trading price of our common stock as reported on the Nasdaq Global Market ranged from a high of $3.09 to a low of $0.66 per share. As a result of this volatility, an investment in our stock is subject to substantial risk. Furthermore, the volatility of our stock price could negatively impact our ability to raise capital or acquire businesses or technologies.

We are contractually obligated to issue shares in the future, diluting the interest of current stockholders.

As of March 31, 2009, there were outstanding warrants to purchase 11,425,354 shares of our common stock, at a weighted average exercise price of $2.26 per share, outstanding options to purchase 8,355,287 shares of our common stock, at a weighted average exercise price of $2.32 per share, and outstanding restricted stock units for 1,350,000 shares of our common stock. Moreover, we expect to issue additional options to purchase shares of our common stock to compensate employees, consultants and directors, and may issue additional shares to raise capital, to acquire other companies or technologies, to pay for services, or for other corporate purposes. Any such issuances will have the effect of diluting the interest of current stockholders.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

ITEM 5. OTHER INFORMATION

In May 2009, we terminated an agreement to purchase a building in Sunnyvale, California which we had entered into with North Pastoria Sunnyvale, LLC in March 2009. Our obligation to purchase the building was subject to due diligence and other pre-closing conditions, and we decided not to purchase the building.

ITEM 6. EXHIBITS

Exhibit 31.1 — Certification of Martin McGlynn under Section 302 of the Sarbanes-Oxley Act of 2002

Exhibit 31.2 — Certification of Rodney K. B. Young under Section 302 of the Sarbanes-Oxley Act of 2002

Exhibit 32.1 — Certification of Martin McGlynn Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Exhibit 32.2 — Certification of Rodney K. B. Young Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

SIGNATURE

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

STEMCELLS, INC.
(name of Registrant)

May 7, 2009

/s/ Rodney K. B. Young
Rodney K. B. Young
Chief Financial Officer

Exhibit Index

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CERTIFICATION OF CHIEF EXECUTIVE OFFICER
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT

I, Martin McGlynn, certify that:

(1) I have reviewed this quarterly report on Form 10-Q of StemCells, Inc.;

(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 quarterly 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: May 7, 2009

/s/ Martin McGlynn
Martin McGlynn
President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT

I, Rodney K. B. Young, certify that:

(1) I have reviewed this quarterly report on Form 10-Q of StemCells, Inc.;

(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 quarterly 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: May 7, 2009

/s/ Rodney K. B. Young
Rodney K. B. Young
Chief Financial 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 StemCells, Inc. (the "Company") quarterly report on Form 10-Q for the period ending March 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Martin McGlynn, President and Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

A signed original of this written statement required by Section 906 has been provided to StemCells, Inc. and will be retained by StemCells, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Date: May 7, 2009

/s/ Martin McGlynn

Martin McGlynn
President and 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 StemCells, Inc. (the "Company") quarterly report on Form 10-Q for the period ending March 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Rodney K. B. Young, Chief Financial Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

A signed original of this written statement required by Section 906 has been provided to StemCells, Inc. and will be retained by StemCells, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Date: May 7, 2009

/s/ Rodney K. B. Young

Rodney K. B. Young
Chief Financial Officer