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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2009

OR

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

For the transition period from to

Commission file number 0-32501

CYTORI THERAPEUTICS, INC.

(Exact name of Registrant as Specified in Its Charter)

DELAWARE	**33-0827593**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
3020 CALLAN ROAD, SAN DIEGO, CALIFORNIA	**92121**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(858) 458-0900**

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 ("the Exchange Act") during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No 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 definition 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 ☒

As of July 31, 2009, there were 36,809,380 shares of the registrant's common stock outstanding.

CYTORI THERAPEUTICS, INC.

INDEX

PART I. FINANCIAL INFORMATION
Item 1. Financial Statements

CYTORI THERAPEUTICS, INC.
CONSOLIDATED CONDENSED BALANCE SHEETS
(UNAUDITED)

	As of June 30, 2009	As of December 31, 2008
Assets		
Current assets:		
Cash and cash equivalents	$ 13,920,000	$ 12,611,000
Accounts receivable, net of allowance for doubtful accounts of $422,000 and $122,000 in 2009 and 2008, respectively	1,504,000	1,308,000
Inventories, net	1,861,000	2,143,000
Other current assets	1,038,000	1,163,000
Total current assets	18,323,000	17,225,000
Property and equipment, net	1,812,000	2,552,000
Investment in joint venture	297,000	324,000
Other assets	582,000	729,000
Intangibles, net	746,000	857,000
Goodwill	3,922,000	3,922,000
Total assets	$ 25,682,000	$ 25,609,000
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 3,912,000	$ 5,088,000
Current portion of long-term obligations	2,564,000	2,047,000
Total current liabilities	6,476,000	7,135,000
Deferred revenues, related party	9,224,000	16,474,000
Deferred revenues	2,438,000	2,445,000
Warrant liability	2,810,000	—
Option liability	1,640,000	2,060,000
Long-term deferred rent	—	168,000
Long-term obligations, less current portion	3,974,000	5,044,000
Total liabilities	26,562,000	33,326,000
Commitments and contingencies		
Stockholders' deficit:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; -0- shares issued and outstanding in 2009 and 2008	—	—
Common stock, $0.001 par value; 95,000,000 shares authorized; 36,234,380 and 31,176,275 shares issued and 36,234,380 and 29,303,441 shares outstanding in 2009 and 2008, respectively	36,000	31,000
Additional paid-in capital	165,296,000	161,214,000
Accumulated deficit	(166,212,000)	(162,168,000)
Treasury stock, at cost	—	(6,794,000)
Total stockholders' deficit	(880,000)	(7,717,000)
Total liabilities and stockholders' deficit	$ 25,682,000	$ 25,609,000

SEE NOTES TO UNAUDITED CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

CYTORI THERAPEUTICS, INC.
CONSOLIDATED CONDENSED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(UNAUDITED)

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2009	**2008**	**2009**	**2008**
Product revenues:				
Related party	$ 9,000	$ 28,000	$ 573,000	$ 28,000
Third party	1,268,000	1,376,000	2,616,000	1,529,000
	1,277,000	1,404,000	3,189,000	1,557,000
Cost of product revenues	776,000	675,000	1,863,000	735,000
Gross profit	501,000	729,000	1,326,000	822,000
Development revenues:				
Development, related party	7,250,000	—	7,250,000	774,000
Research grant and other	14,000	12,000	22,000	49,000
	7,264,000	12,000	7,272,000	823,000
Operating expenses:				
Research and development	2,919,000	5,034,000	6,388,000	9,998,000
Sales and marketing	1,463,000	1,117,000	2,748,000	2,074,000
General and administrative	2,309,000	3,162,000	4,803,000	6,272,000
Change in fair value of warrants	2,133,000	—	1,112,000	—
Change in fair value of option liabilities	(630,000)	(200,000)	(420,000)	—
Total operating expenses	8,194,000	9,113,000	14,631,000	18,344,000
Operating loss	(429,000)	(8,372,000)	(6,033,000)	(16,699,000)
Other income (expense):				
Interest income	4,000	38,000	18,000	114,000
Interest expense	(374,000)	(18,000)	(774,000)	(41,000)
Other expense, net	(16,000)	(53,000)	(108,000)	(43,000)
Equity loss from investment in joint venture	(11,000)	(8,000)	(27,000)	(17,000)
Total other income (expense)	(397,000)	(41,000)	(891,000)	13,000
Net loss	$ (826,000)	$ (8,413,000)	$ (6,924,000)	$ (16,686,000)
Basic and diluted net loss per common share	$ (0.02)	$ (0.33)	$ (0.21)	$ (0.66)
Basic and diluted weighted average common shares	35,077,783	25,819,980	33,732,954	25,131,317

SEE NOTES TO UNAUDITED CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

CYTORI THERAPEUTICS, INC.
CONSOLIDATED CONDENSED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	For the Six Months Ended June 30,	
	2009	**2008**
Cash flows from operating activities:		
Net loss	$ (6,924,000)	$ (16,686,000)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	876,000	777,000
Amortization of deferred financing costs and debt discount	386,000	—
Warranty provision	(23,000)	(22,000)
Provision for doubtful accounts	300,000	61,000
Change in fair value of warrants	1,112,000	—
Change in fair value of option liabilities	(420,000)	—
Share-based compensation expense	1,276,000	1,199,000
Equity loss from investment in joint venture	27,000	17,000
Increases (decreases) in cash caused by changes in operating assets and liabilities:		
Accounts receivable	(496,000)	(1,125,000)
Inventories	282,000	(932,000)
Other current assets	78,000	23,000
Other assets	51,000	(85,000)
Accounts payable and accrued expenses	(1,153,000)	(490,000)
Deferred revenues, related party	(7,250,000)	(774,000)
Deferred revenues	(7,000)	—
Long-term deferred rent	(168,000)	(147,000)
Net cash used in operating activities	(12,053,000)	(18,184,000)
Cash flows from investing activities:		
Proceeds from sale and maturity of short-term investments	—	5,006,000
Purchases of short-term investments	—	(5,006,000)
Purchases of property and equipment	(18,000)	(296,000)
Net cash used in investing activities	(18,000)	(296,000)
Cash flows from financing activities:		
Principal payments on long-term obligations	(803,000)	(346,000)
Proceeds from exercise of employee stock options	21,000	689,000
Proceeds from sale of common stock and warrants	11,189,000	12,000,000
Costs from sale of common stock and warrants	(960,000)	—
Proceeds from sale of treasury stock	3,933,000	—
Net cash provided by financing activities	13,380,000	12,343,000
Net increase (decrease) in cash and cash equivalents	1,309,000	(6,137,000)
Cash and cash equivalents at beginning of period	12,611,000	11,465,000
Cash and cash equivalents at end of period	$ 13,920,000	$ 5,328,000
Supplemental disclosure of cash flows information:		
Cash paid during period for:		
Interest	$ 399,000	$ 44,000
Taxes	—	—

SEE NOTES TO UNAUDITED CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

CYTORI THERAPEUTICS, INC.
NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
June 30, 2009
(UNAUDITED)

1. Basis of Presentation

Our accompanying unaudited consolidated condensed financial statements as of June 30, 2009 and for the three and six months ended June 30, 2009 and 2008 have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for annual financial statements. Our consolidated condensed balance sheet at December 31, 2008 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of the financial position and results of operations of Cytori Therapeutics, Inc., and our subsidiaries (the Company) have been included. Operating results for the three and six months ended June 30, 2009 are not necessarily indicative of the results that may be expected for the year ending December 31, 2009. We have evaluated subsequent events for recognition or disclosure through August 10, 2009, which was the date we filed this Form 10-Q with the SEC. These financial statements should be read in conjunction with the consolidated financial statements and notes therein included in our annual report on Form 10-K for the year ended December 31, 2008.

2. Use of Estimates

The preparation of consolidated condensed financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Our most significant estimates and critical accounting policies involve recognizing revenue, evaluating goodwill for impairment, valuing warrants, valuing our put option arrangement with Olympus Corporation (Put option) (see notes 13 and 14), determining the assumptions used in measuring share-based compensation expense, valuing our deferred tax assets, assessing how to report our investment in Olympus-Cytori, Inc., estimating our allowance for doubtful accounts and valuation of inventory.

Actual results could differ from these estimates. Current economic conditions, including illiquid credit markets and volatile equity markets, contribute to the inherent uncertainty of such estimates. Management's estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated condensed financial statements in the periods they are determined to be necessary.

3. Liquidity

We incurred losses of $826,000 and $6,924,000 for the three and six months ended June 30, 2009 and $8,413,000 and $16,686,000 for the three and six months ended June 30, 2008, respectively. We have an accumulated deficit of $166,212,000 as of June 30, 2009. Additionally, we have used net cash of $12,053,000 and $18,184,000 to fund our operating activities for the six months ended June 30, 2009 and 2008, respectively. To date these operating losses have been funded primarily from outside sources of invested capital.

During 2008, we initiated our commercialization activities while simultaneously pursuing available financing sources to support operations and growth. We have had, and continue to have, an ongoing need to raise additional cash from outside sources to fund our operations. However, our ability to raise capital has been adversely affected by current credit conditions and the downturn in the financial markets and the global economy. Accordingly, the combination of these facts raises substantial doubt as to the Company's ability to continue as a going concern. The accompanying consolidated condensed financial statements have been prepared assuming that the Company will continue as a going concern. If we are unsuccessful in our efforts to raise outside capital in the near term, we will be required to further reduce our research, development, and administrative operations, including reduction of our employee base, in order to offset the lack of available funding.

We are pursuing financing opportunities in both the private and public debt and equity markets as well as through strategic corporate partnerships. We have an established history of raising capital through these platforms, and we are currently involved in discussions with multiple parties. In March 2009, we raised approximately $10,000,000 in gross proceeds from the sale to institutional investors of a total of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common stock at a purchase price of $2.10 per unit, with each unit consisting of one (1) share and one

and four-tenths (1.4) warrants (with an exercise price of $2.59 per share). In May 2009, we raised approximately $4,242,000 in net proceeds from a private placement of 1,864,783 unregistered shares of common stock and 3,263,380 common stock warrants at a purchase price of $2.28 per unit, with each unit consisting of one (1) share and one and three-fourths (1.75) warrants (with an exercise price of $2.62 per share) to a syndicate of investors. Additionally, we entered into a common stock purchase agreement with Seaside 88, LP relating to the offering and sale of a total of up to 7,150,000 shares of our common stock. The agreement requires us to issue and Seaside to buy 275,000 shares of our common stock once every two weeks, subject to the satisfaction of customary closing conditions, with the offering price equal to 87% of our common stock's volume weighted average trading price during the ten-day trading period immediately preceding each closing date. If with respect to any subsequent closing, our common stock's ten day volume weighted average trading price is below $2.50 per share, then the closing will not occur. We raised approximately $852,000 in gross proceeds from the sale of 275,000 at a purchase price of $3.10 at our initial closing on June 22, 2009.

We expect to continue to utilize our cash and cash equivalents to fund operations through the next nine months, subject to minimum cash and cash liquidity requirements of the Loan and Security Agreement with the Lenders, which requires that we maintain at least three months of cash on hand to avoid an event of default under the Loan and Security Agreement. We continue to seek additional cash through product revenues, strategic collaborations, and future sales of equity or debt securities. To the extent closing conditions are met, we expect the Seaside 88, LP agreement will significantly extend our available resources and may reduce our need for alternate financing. Subsequent to the quarter ended June 30, 2009, we completed three scheduled closings with Seaside 88, LP during the period of July 1, 2009 through our filing date of August 10, 2009 raising in aggregate approximately $2,455,000 in gross proceeds from the sale of 825,000 shares of our common stock. Although there can be no assurance given, we hope to successfully complete one or more additional financing transactions or corporate partnerships in the near-term (including future closings of the Seaside 88, LP agreement). Without this additional capital, current working capital, cash generated from sales and containment of costs will not provide adequate funding for operations at their current levels. If such efforts are not successful, we will need to further reduce or curtail operations and this could negatively affect our ability to achieve corporate growth goals. We have implemented an operating plan that reduces certain operations to focus almost entirely on the supply of current products to existing or new distribution channels. In addition, as part of this plan, there will be reduced expenditures for ongoing scientific research, product development or clinical research. This impacts research and development headcount, external subcontractor expenditures, capital outlay and general and administrative expenditures related to the supervision of such activities. In parallel, we significantly reduced administrative staff and salaries consistent with the overall reduction in scope of operations. In aggregate, such reductions resulted in eliminations of roles for the many of the Company's staff (our overall headcount decreased to 84 employees as of June 30, 2009 as compared to 126 employees as of December 31, 2008) and the deferral or elimination of most research and development projects until such time that cash resources are available from operations or outside sources to re-establish development and growth plans.

4. Short-Term Investments

We invest excess cash in money market funds, highly liquid debt instruments of financial institutions and corporations with strong credit ratings, and in United States government obligations. We have established guidelines relative to diversification and maturities that maintain safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. After considering current market conditions, and in order to minimize our risk, management has elected to invest all excess funds in money market funds and other highly liquid investments that are appropriately classified as cash equivalents as of June 30, 2009 and December 31, 2008.

5. Warrant Liability

Effective January 1, 2009 we adopted the provisions of Emerging Issues Task Force ("EITF") Issue No. 07-5, "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock" ("EITF 07-5"). EITF 07-5 applies to any freestanding financial instruments or embedded features that have the characteristics of a derivative, as defined by SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," and to any freestanding financial instruments that are potentially settled in an entity's own common stock. As a result of adopting EITF 07-5, an original amount of 1,412,758 of our issued and outstanding common stock purchase warrants previously classified as a component of stockholders' deficit are now presented as a liability. These warrants had an original exercise price of $8.50 and expire in August 2013 (see note 16 for warrant adjustments). As such, effective January 1, 2009, we reclassified the fair value of these common stock purchase warrants, which have exercise price reset features, from equity to liability status as if these warrants had been treated as a derivative liability since their date of issue in August 2008. On January 1, 2009, we reclassified from additional paid-in capital, as a cumulative effect adjustment, $2.9 million to beginning accumulated deficit and $1.7 million to a long-term warrant liability to recognize the fair value of such warrants on such date. The fair value of these common stock purchase warrants increased to $2.8 million as of June 30, 2009. As such, we recognized a $2.1 and $1.1 million loss from the change in fair value of these warrants for the three and six months ended June 30, 2009, respectively.

These common stock purchase warrants were initially issued in connection with our August 2008 private placement of 2,825,517 unregistered shares of common stock and 1,412,758 common stock warrants. The common stock purchase warrants were not issued with the intent of effectively hedging any future cash flow, fair value of any asset, liability or any net investment in a foreign operation. The warrants do not qualify for hedge accounting, and as such, all future changes in the fair value of these warrants will be recognized currently in earnings until such time as the warrants are exercised or expire. These common stock purchase warrants do not trade in an active securities market, and as such, we estimate the fair value of these warrants using the Black-Scholes option pricing model using the following assumptions:

	As of June 30, 2009	As of December 31, 2008
Expected term	4.12 years	4.61 years
Common stock market price	$ 3.61	$ 3.61
Risk-free interest rate	2.09%	1.55%
Expected volatility	73.65%	65.71%
Resulting fair value (per warrant)	$ 1.54	$ 1.20

Expected volatility is based primarily on historical volatility. Historical volatility was computed using daily pricing observations for recent periods that correspond to the expected term of the warrants. We believe this method produces an estimate that is representative of our expectations of future volatility over the expected term of these warrants. We currently have no reason to believe future volatility over the expected remaining life of these warrants is likely to differ materially from historical volatility. The expected life is based on the remaining term of the warrants. The risk-free interest rate is based on five-year U.S. Treasury securities.

See note 14 for further discussion of fair value for these warrants.

6. Revenue Recognition

Product Sales

We recognize revenue from product sales when the following fundamental criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the price to the customer is fixed or determinable and (iv) collection of the resulting accounts receivable is reasonably assured.

For all sales, we use a binding purchase order or a signed agreement as evidence of an arrangement. Revenue for these product sales will be recognized upon delivery to the customer, as all risks and rewards of ownership have been substantively transferred to the customer at that point. For Celution® 800/CRS System sales to customers who arrange for and manage the shipping process, we recognize revenue upon shipment from our facilities. Shipping and handling costs that are billed to our customers are classified as revenue, in accordance with Emerging Issues Task Force (EITF) Issue No. 00-10, “Accounting for Shipping and Handling Fees and Costs” (“EITF 00-10”). The customer’s obligation to pay and the payment terms are set at the time of delivery and are not dependent on the subsequent use or resale of our product.

For those sales that include multiple deliverables, we allocate revenue based on the relative fair values of the individual components as determined in accordance with EITF Issue No. 00-21, “Revenue Arrangements with Multiple Deliverables” (“EITF 00-21”). When more than one element such as product maintenance or technical support services are included in an arrangement, we allocate revenue between the elements based on each element’s relative fair value, provided that each element meets the criteria for treatment as a separate unit of accounting. An item is considered a separate unit of accounting if it has value to the customer on a standalone basis and there is objective and reliable evidence of the fair value of the undelivered items. Fair value is generally determined based upon the price charged when the element is sold separately. In the absence of fair value for a delivered element, we allocate revenue first to the fair value of the undelivered elements and allocate the residual revenue to the delivered elements. Fair values for undelivered elements are determined based on vendor-specific objective evidence. Deferred service revenue is recognized ratably over the period the services are provided. In the absence of fair value for an undelivered element, the arrangement is accounted for as a single unit of accounting, resulting in a deferral of revenue recognition for delivered elements until all undelivered elements have been fulfilled.

Concentration of Significant Customers

For the six months ended June 30, 2009, our sales were concentrated in three distributors and one direct customer, which in aggregate comprised 61% of our revenue recognized for the six months ended June 30, 2009. Our Asia-Pacific region sales accounted for 49% of our revenue recognized for the six months ended June 30, 2009. Additionally, one distributor and one end customer accounted for 50% of total outstanding accounts receivable as of June 30, 2009. We continuously monitor the creditworthiness of our distributors and believe our sales to diverse end customers and to diverse geographies further serve to mitigate our exposure to credit risk.

Research and Development

We earn revenue for performing tasks under research and development agreements with both commercial enterprises, such as Olympus and Senko, and governmental agencies like the National Institutes of Health ("NIH"). Revenue earned under development agreements is classified as either research grant or development revenues depending on the nature of the arrangement. Revenues derived from reimbursement of direct out-of-pocket expenses for research costs associated with grants are presented in compliance with EITF Issue No. 99-19, "Reporting Revenue Gross as a Principal Versus Net as an Agent," and EITF Issue No. 01-14, "Income Statement Characterization of Reimbursements Received for "Out-of-Pocket" Expenses Incurred." In accordance with the criteria established by these EITF Issues, we record grant revenue for the gross amount of the reimbursement. The costs associated with these reimbursements are reflected as a component of research and development expense in our consolidated statements of operations. Additionally, research and development arrangements we have with commercial enterprises such as Olympus and Senko are considered a key component of our central and ongoing operations. Accordingly, when recognized, the inflows from such arrangements are presented as revenues in our consolidated statements of operations.

We received substantial funds from Olympus and Olympus-Cytori, Inc. during 2005 and 2006. We recorded upfront proceeds totaling $28,311,000 as deferred revenues, related party. In exchange for these proceeds, we agreed to (a) provide Olympus-Cytori, Inc. an exclusive and perpetual license to our therapeutic device technology, including the Celution® System platform and certain related intellectual property, and (b) provide future development contributions related to commercializing the Celution® System platform. The license and development services are not separable under EITF 00-21. The recognition of this deferred amount requires achievement of service related milestones, under a proportional performance methodology. If and as such revenues are recognized, deferred revenue will be decreased. Proportional performance methodology was elected due to the nature of our development obligations and efforts in support of the Joint Venture ("JV"), including product development activities and regulatory efforts to support the commercialization of the JV products. The application of this methodology uses the achievement of R&D milestones as outputs of value to the JV. We received up-front, non-refundable payments in connection with these development obligations, which we have broken down into specific R&D milestones that are definable and substantive in nature, and which will result in value to the JV when achieved. Revenue will be recognized as the above mentioned R&D milestones are completed. Of the amounts received and deferred, we recognized development revenues of $0 and $774,000 for the three and six months ended June 30, 2008. During 2009, we recognized revenues of $7,250,000 for the three and six months ended June 30, 2009 upon completion of two clinical milestones. The clinical milestones reflect the achievement of the primary goals of safety and feasibility as well as the completion of the enrollment process for both of our clinical cardiac trials. All related development costs are expensed as incurred and are included in research and development expense on the statement of operations.

Under a Distribution Agreement with Senko, we granted to Senko an exclusive license to sell and distribute certain Thin Film products in Japan. We have also earned or will be entitled to earn additional payments under the Distribution Agreement based on achieving the defined research and development milestones. There was no development revenue recognized during the three and six months ended June 30, 2009 and 2008.

7. Inventories

Inventories are carried at the lower of cost, which approximates average cost, determined on the first-in, first-out (FIFO) method, or market.

Inventories consisted of the following:

	June 30, 2009	December 31, 2008
Raw materials	$ 931,000	$ 712,000
Work in process	284,000	347,000
Finished goods	646,000	1,084,000
	$ 1,861,000	$ 2,143,000

8. Long-Lived Assets

In accordance with SFAS No. 144, "Accounting for Impairment or Disposal of Long-Lived Assets," we assess certain long-lived assets, such as property and equipment and intangible assets other than goodwill, for potential impairment when there is a change in circumstances that indicates carrying values of assets may not be recoverable. Such long-lived assets are deemed to be impaired when the undiscounted cash flows expected to be generated by the asset (or asset group) are less than the asset's carrying amount. Any required impairment loss would be measured as the amount by which the asset's carrying value exceeds its

fair value, and would be recorded as a reduction in the carrying value of the related asset and a charge to operating expense. During the three and six months ended June 30, 2009 and 2008, we had no impairment losses associated with our long-lived assets.

9. Share-Based Compensation

During the first quarter of 2009, we made a company-wide option grant to our non-executive employees to purchase up to 249,250 shares of our common stock, subject to a four-year graded vesting schedule. The grant date fair value of the awards was $2.00 per share. Following the reduction of our workforce at the end of the same quarter, 182,100 of these options remained outstanding. The resulting share-based compensation expense of $364,200, net of estimated forfeitures, will be recognized as expense over the employees' respective service periods.

During the first quarter of 2009, we issued to our officers and directors options to purchase an aggregate of up to 585,000 shares of our common stock, with four-year graded vesting for our officers and two-year graded vesting for our directors. The grant date fair value of the awards granted to our officers and directors was $2.70 per share. The resulting share-based compensation expense of $1,579,500, net of estimated forfeitures, will be recognized as expense over the respective service periods.

During the second quarter of 2009, we made a company-wide option grant to our non-executive employees to purchase up to 155,580 shares of our common stock, subject to a four-year graded vesting schedule. The grant date fair value of the awards was $1.18 per share. The resulting share-based compensation expense of $183,000, net of estimated forfeitures, will be recognized as expense over the employees' respective service periods.

During the first quarter of 2008, we issued to our officers and directors stock options to purchase an aggregate of up to 450,000 shares of our common stock, with four-year graded vesting for our officers and two-year graded vesting for our directors. The grant date fair value of option awards granted to our officers and directors was $2.73 per share. The resulting share-based compensation expense of $1,230,000, net of estimated forfeitures, will be recognized as expense over the respective service periods.

10. Loss per Share

We compute loss per share based on the provisions of SFAS No. 128, "Earnings per Share." Basic per share data is computed by dividing net income or loss applicable to common stockholders by the weighted average number of common shares outstanding during the period. Diluted per share data is computed by dividing net income or loss applicable to common stockholders by the weighted average number of common shares outstanding during the period increased to include, if dilutive, the number of additional common shares that would have been outstanding as calculated using the treasury stock method. Potential common shares were related entirely to outstanding but unexercised options and warrants for all periods presented.

On January 1, 2009, we adopted FSP No. EITF 03-6-1, "Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities," (FSP EITF 03-6-1). FSP EITF 03-6-1 states that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. The adoption of FSP EITF 03-6-1 did not have a material impact on our financial statements.

We have excluded all potentially dilutive securities from the calculation of diluted loss per share attributable to common stockholders for the three and six months ended June 30, 2009 and 2008, as their inclusion would be antidilutive. Potentially dilutive common shares excluded from the calculations of diluted loss per share were 20,186,975 for the three and six month periods ended June 30, 2009 and 7,985,949 for the three and six month periods ended June 30, 2008, respectively.

11. Commitments and Contingencies

We have entered into agreements, which have provisions for cancellation, with various clinical research organizations for pre-clinical and clinical development studies. Under the terms of these agreements, the vendors provide a variety of services including, but not limited to, conducting pre-clinical development research, recruiting and enrolling patients, monitoring studies, and data analysis. Payments under these agreements typically include fees for services and reimbursement of expenses. The timing of payments due under these agreements is estimated based on current schedules of pre-clinical and clinical studies in progress. As of June 30, 2009, we have pre-clinical research study obligations of $253,000 (which are expected to be fully completed within a year) and clinical research study obligations of $4,800,000 ($2,400,000 of which are expected to be completed within a year).

We are subject to various claims and contingencies related to legal proceedings. Due to their nature, such legal proceedings involve inherent uncertainties including, but not limited to, court rulings, negotiations between affected parties, and governmental

actions. Management assesses the probability of loss for such contingencies and accrues a liability and/or discloses the relevant circumstances, as appropriate. Management believes that any liability to us or other remedy that may arise as a result of currently pending legal proceedings will not have a material adverse effect on our financial condition, liquidity, or results of operations as a whole.

During 2008, we entered into a supply agreement with minimum purchase requirements clause. As of June 30, 2009, we have minimum purchase obligations of $2,125,000 ($1,488,000 of which are to be expected to complete within a year).

Refer to note 12 for a discussion of our commitments and contingencies related to our interactions with the University of California.

Refer to note 13 for a discussion of our commitments and contingencies related to our transactions with Olympus, including (a) our obligation to the Joint Venture in future periods and (b) certain put and call rights embedded in the arrangements with Olympus.

12. License Agreement

On October 16, 2001, StemSource, Inc. entered into an exclusive worldwide license agreement with the Regents of the University of California or UC, licensing all of UC's rights to certain pending patent applications being prosecuted by UC and (in part) by the University of Pittsburgh, for the life of these patents, with the right of sublicense. The exclusive license includes issued U.S. patent number 7,470,537, and formerly included issued U.S. patent number 6,777,231, which we refer to as the '231 Patent, in addition to various international patents and pending U.S. and international applications relating to adipose-derived stem cells. In November 2002, we acquired StemSource, and the license agreement was assigned to us.

The University of Pittsburgh filed a lawsuit in the fourth quarter of 2004 seeking a determination that its assignors, rather than UC's assignors, are the true inventors of the '231 Patent. On June 9, 2008 the United States District Court for the Central District of California ("the District Court") concluded that the University of Pittsburgh's assignors were the sole inventors of the '231 Patent. The District Court's decision terminated UC's rights to the '231 Patent. Shortly thereafter, the UC assignors appealed the District Court's decision to the United States Court of Appeals. On July 23, 2009, the United States Court of Appeals affirmed the decision of the District Court confirming the termination of UC's rights to the '231 Patent. Since our current products and products under development do not practice the '231 Patent, our ongoing business activities and product development pipeline should not be affected by these events.

13. Transactions with Olympus Corporation

Initial Investment by Olympus Corporation in Cytori

In 2005, we entered into a common stock purchase agreement with Olympus in which we received $11,000,000 in cash proceeds. We received an additional $11,000,000 from Olympus in August 2006 for the issuance of approximately 1,900,000 shares of our common stock at $5.75 per share. We received an additional $6,000,000 from Olympus in August 2008 for the issuance of 1,000,000 unregistered shares of our common stock at $6.00 per share and 500,000 common stock warrants (with an original exercise price of $8.50 per share, see note 15) under a private placement offering.

As of June 30, 2009, Olympus holds approximately 11.08% of our issued and outstanding shares. Additionally, Olympus has a right to designate a director to serve on our Board of Directors, which it has not yet exercised, though it has from time to time utilized an observer to attend Company Board meetings.

Formation of the Olympus-Cytori Joint Venture

In 2005, we entered into a joint venture and other related agreements (the "Joint Venture Agreements") with Olympus. The Joint Venture is owned equally by Olympus and us. We have determined that the Joint Venture is a variable interest entity or VIE, pursuant to Financial Accounting Standards Board (FASB) Interpretation No. 46 (revised 2003), "Consolidation of Variable Interest Entities - an interpretation of ARB No. 51" ("FIN 46R"), but that Cytori is not the VIE's primary beneficiary. Accordingly, we have accounted for our interests in the Joint Venture using the equity method of accounting, since we can exert significant influence over the Joint Venture's operations. At June 30, 2009, the carrying value of our investment in the Joint Venture is $297,000. We are under no obligation to provide additional funding to the Joint Venture, but may choose to do so. We made no cash contributions to the Joint Venture during the three and six months ended June 30, 2009 and 2008, respectively.

Put/Calls and Guarantees

The Shareholders' Agreement between Cytori and Olympus provides that in certain specified circumstances of insolvency or if we experience a change in control, Olympus will have the rights to (i) repurchase our interests in the Joint Venture at the fair value of such interests or (ii) sell its own interests in the Joint Venture to Cytori at the higher of (a) $22,000,000 or (b) the Put's fair value.

At June 30, 2009 and December 31, 2008, the estimated fair value of the Put was $1,640,000 and $2,060,000, respectively. Fluctuations in the Put value are recorded in the consolidated condensed statements of operations as a component of change in fair value of option liabilities. The estimated fair value of the Put has been recorded as a long-term liability in the caption option liability in our consolidated condensed balance sheets.

The valuations of the Put were completed using an option pricing theory based simulation analysis (i.e., a Monte Carlo simulation). The valuations are based on assumptions as of the valuation date with regard to the market value of Cytori and the estimated fair value of the Joint Venture, the expected correlation between the values of Cytori and the Joint Venture, the expected volatility of Cytori and the Joint Venture, the bankruptcy recovery rate for Cytori, the bankruptcy threshold for Cytori, the probability of a change of control event for Cytori, and the risk free interest rate.

The following assumptions were employed in estimating the value of the Put:

	June 30, 2009	December 31, 2008
Expected volatility of Cytori	72.00%	68.00%
Expected volatility of the Joint Venture	72.00%	68.00%
Bankruptcy recovery rate for Cytori	19.00%	21.00%
Bankruptcy threshold for Cytori	$ 14,486,000	$ 16,740,000
Probability of a change of control event for Cytori	2.87%	2.80%
Expected correlation between fair values of Cytori and the Joint Venture in the future	99.00%	99.00%
Risk free interest rate	3.53%	2.25%

The Put has no expiration date. Accordingly, we will continue to recognize a liability for the Put and mark it to market each quarter until it is exercised or until the arrangements with Olympus are amended.

14. Fair Value Measurements

SFAS 157 emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing the asset or liability. SFAS 157 establishes a three-level hierarchy to prioritize the inputs used in the valuation techniques to derive fair values. The basis for fair value measurements for each level within the hierarchy is described below, with Level 1 having the highest priority and Level 3 having the lowest:

- Level 1: Quoted prices in active markets for identical assets or liabilities.

- Level 2: Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable in active markets.

- Level 3: Valuations derived from valuation techniques in which one or more significant inputs are unobservable in active markets.

The following table provides a summary of the recognized assets and liabilities that we measure at fair value on a recurring basis:

	Balance as of June 30, 2009	Basis of Fair Value Measurements Level 1	Level 2	Level 3
Assets:				
Cash equivalents	$ 6,831,000	$ 6,831,000	$ —	$ —
Liabilities:				
Put option liability	$ (1,640,000)	$ —	$ —	$ (1,640,000)
Warrant liability	$ (2,810,000)	$ —	$ (2,810,000)	$ —

We use quoted market prices to determine the fair value of our cash equivalents, which consist of money market funds and therefore these are classified in Level 1 of the fair value hierarchy.

Our put option liability (see note 13) is valued using an option pricing theory based simulation analysis (i.e., a Monte Carlo simulation). Assumptions are made with regard to the market value of Cytori and the estimated fair value of the Joint Venture, the expected correlation between the values of

Cytori and the Joint Venture,

the expected volatility of Cytori and the Joint Venture, the bankruptcy recovery rate for Cytori, the bankruptcy threshold for Cytori, the probability of a change of control event for Cytori, and the risk free interest rate. Because some of the inputs to our valuation model are either not observable quoted prices or are not derived principally from or corroborated by observable market data by correlation or other means, the put option liability is classified as Level 3 in the fair value hierarchy.

The following table summarizes the change in our Level 3 put option liability value:

Put option liability	Six months ended June 30, 2009	Three months ended June 30, 2009
Beginning balance	$ (2,060,000)	$ (2,270,000)
Decrease in fair value recognized in operating expenses	420,000	630,000
Ending balance	$ (1,640,000)	$ (1,640,000)

Our warrant liability is calculated utilizing the Black-Scholes option-pricing model in which all significant inputs are observable in active markets, such as common stock market price, volatility, and risk free rate, therefore the warrant liability is classified as Level 2 in the fair value hierarchy. See note 5 for further discussion of fair value for these warrants.

No other assets or liabilities are measured at fair value on a recurring basis, or have been measured at fair value on a non-recurring basis subsequent to initial recognition, on the accompanying consolidated condensed balance sheet as of June 30, 2009.

15. Fair Value of Financial Instruments

SFAS No. 107, “Disclosure about Fair value of Financial Instruments”, requires us to disclose fair value information about all financial instruments, whether or not recognized in the balance sheet, for which it is practicable to estimate fair value. The disclosures of estimated fair value of financial instruments at June 30, 2009 and December 31, 2008, were determined using available market information and appropriate valuation methods. Considerable judgment is necessary to interpret market data and develop estimated fair value. The use of different market assumptions or estimation methods may have a material effect on the estimated fair value amounts.

The carrying amounts for cash and cash equivalents, accounts receivable, inventories, other current assets, accounts payable, accrued expenses and other liabilities approximate fair value due to the short-term nature of these instruments.

We utilize quoted market prices to estimate the fair value of our fixed rate debt, when available. If quoted market prices are not available, we calculate the fair value of our fixed rate debt based on a currently available market rate assuming the loans are outstanding through maturity and considering the collateral. In determining the current market rate for fixed rate debt, a market spread is added to the quoted yields on federal government treasury securities with similar terms to debt.

At June 30, 2009 and December 31, 2008, the aggregate fair value and the carrying value of the Company’s fixed rate debt were as follows:

	June 30, 2009		December 31, 2008	
	Fair Value	Carrying Value	Fair Value	Carrying Value
Fixed rate debt (1)	$ 6,535,000	$ 6,500,000	$ 7,178,000	$ 7,052,000

(1) Carrying value includes $573,000 and $823,000 of debt discount as of June 30, 2009 and December 31, 2008, respectively.

16. Stockholders’ Deficit

Common Stock

On February 8, 2008, we agreed to sell 2,000,000 shares of unregistered common stock to Green Hospital Supply, Inc., a related party, for $12,000,000 cash, or $6.00 per share in a private stock placement. On February 29, 2008, we closed the first half of the private placement with Green Hospital Supply, Inc. and received $6,000,000. We closed the second half of the private placement on April 30, 2008 and received the second payment of $6,000,000. As of June 30, 2009, Green Hospital Supply, Inc., a related party, holds approximately 8.28% of our issued and outstanding shares.

On August 11, 2008, we raised approximately $17,000,000 in gross proceeds from a private placement of 2,825,517 unregistered shares of common stock and 1,412,758 common stock warrants (with an original exercise price of $8.50 per share) to a syndicate of investors including Olympus Corporation, who acquired 1,000,000 unregistered shares and 500,000 common stock warrants in exchange for $6,000,000 of the total proceeds raised. Purchase price per unit was $6.00, with each unit consisting of one (1)

common stock share and a half (0.5) common stock warrant. These warrants were not exercisable until six months after the date of issuance and will expire five years after the date the warrants are first exercisable. Effective January 1, 2009, warrants issued in August 2008 as part of our private placement of common stock are accounted for in accordance with EITF Issue No. 07-5. EITF 07-5 provides a framework for evaluating the terms of a particular instrument to determine whether such instrument is considered a derivative financial instrument. Under EITF 07-5, warrants issued in August 2008 as part of our private placement of common stock are classified as a warrant liability in our consolidated condensed balance sheet. See note 5 – Warrant Liability.

On March 10, 2009, we raised approximately $10,000,000 in gross proceeds from sale to institutional investors of a total of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common stock at a purchase price of $2.10 per unit, with each unit consisting of one (1) share and one and four-tenths (1.4) warrants. The warrants will not be exercisable until six months after the date of issuance and will expire five years after the date the warrants are first exercisable. The warrants will have an exercise price of $2.59 per share, which was the consolidated closing bid price of the Company's common stock on March 9, 2009, as reported by NASDAQ. The shares and the warrants are immediately separable and will be issued separately. We have accounted for the warrants as a component of stockholders' deficit, consistent with EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock". The warrants must be settled through a cash exercise whereby the warrant holder exchanges cash for shares of Cytori common stock, unless the exercise occurs when the related registration statement is not effective, in which case the warrant holder can only exercise through the cashless exercise feature of the warrant agreement.

On May 14, 2009, we raised approximately $4,242,000 in net proceeds from a private placement of 1,864,783 shares of our common stock and warrants to purchase up to a total of 3,263,380 additional shares of our common stock at a purchase price of $2.28 per unit, with each unit consisting of one (1) share and one and three-fourths (1.75) warrants. The warrants are exercisable immediately and will expire five years after the date of issuance. The warrants will have an exercise price of $2.62 per share. We have accounted for the warrants as a component of stockholders' deficit, consistent with EITF 00-19.

Additionally, on June 19, 2009, we entered into a common stock purchase agreement with Seaside 88, LP relating to the offering and sale of a total of up to 7,150,000 shares of our common stock. The agreement requires us to issue and Seaside to buy 275,000 shares of our common stock once every two weeks, subject to the satisfaction of customary closing conditions. At an initial closing, the offering price will equal 87% of our common stock's volume weighted average trading price during the trading day immediately prior to the initial closing date and at subsequent closings on each 14th day thereafter for one year the offering price will equal 87% of our common stock's volume weighted average trading price during the ten-day trading period immediately preceding each subsequent closing date. We raised approximately $852,000 in gross process from the sale of 275,000 at a purchase price of $3.10 at our initial closing on June 22, 2009.

Warrant Adjustments

Our March 2009 offering of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common stock with an exercise price of $2.59 per share, our May 2009 equity offering of 1,864,783 shares of our common stock and warrants to purchase up to a total of 3,263,380 additional shares of our common stock with an exercise price of $2.62 per share, and our initial closing with Seaside 88, LP on June 22, 2009 triggered an adjustment to the exercise price and number of shares issuable under the warrants issued to investors in our August 2008 private placement financing. As a result, as of June 30, 2009, the common stock warrants issued on August 11, 2008, are currently exercisable for 1,824,991 shares of our common stock at an exercise price of $6.58 per share.

Treasury Stock

As part of our equity offering on March 10, 2009, we sold our remaining 1,872,834 shares of common stock from our treasury for $3,933,000 cash, or $2.10 per share. The cost basis of the treasury stock sold was at a weighted average purchase price, or $3.63 per share, resulting in a loss of $1.53 per share, or $2,861,000 in aggregate, and was accounted for as a charge to additional paid-in capital.

17. Recent Accounting Pronouncements

In May 2009, the FASB issued SFAS No. 165, "Subsequent Events" ("SFAS 165"), which sets forth principles and requirements for subsequent events, specifically (i) the period during which management should evaluate events or transactions that may occur for potential recognition and disclosure, (ii) the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date, and (iii) the disclosures that an entity should make about events and transactions occurring after the balance sheet date. SFAS 165 is effective for interim reporting periods ending after June 15, 2009. The adoption of SFAS 165 did not have a material impact on our consolidated condensed financial statements.

In June 2009, the FASB issued SFAS No. 167, "Amendments to FASB Interpretation No. 46(R)," ("SFAS 167"). SFAS 167 requires an enterprise to qualitatively assess the determination of the primary beneficiary (or "consolidator") of a variable interest entity, or VIE, based on whether the entity (1) has the power to direct matters that most significantly impact the activities of the

VIE, and (2) has the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. SFAS 167 changes the consideration of kick-out rights in determining if an entity is a VIE and requires an ongoing reconsideration of the primary beneficiary. It also amends the events that trigger a reassessment of whether an entity is a VIE. SFAS 167 is effective as of the beginning of each reporting entity's first annual reporting period that begins after November 15, 2009, interim periods within that first annual reporting period, and for interim and annual reporting periods thereafter. Earlier adoption is prohibited. We expect to adopt SFAS 167 on January 1, 2010, and currently are in the process of evaluating the potential effect of the adoption on its financial statements.

18. Subsequent Events

We completed three scheduled closings with Seaside 88, LP during the period of July 1, 2009 through our filing date of August 10, 2009 in connection with the agreement we entered into with Seaside 88, LP on June 19, 2009. During this period we raised an aggregate of approximately $2,455,000 in gross proceeds from the sale of 825,000 shares of our common stock.

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

Our Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) includes the following sections:

- Overview that discusses our operating results and some of the trends that affect our business.
- Results of Operations that includes a more detailed discussion of our revenue and expenses.
- Liquidity and Capital Resources which discusses key aspects of our statements of cash flows, changes in our financial position and our financial commitments.
- Significant changes since our most recent Annual Report on Form 10-K in the Critical Accounting Policies and Significant Estimates that we believe are important to understanding the assumptions and judgments underlying our financial statements.

You should read this MD&A in conjunction with the financial statements and related notes in Item 1 and our Annual Report on Form 10-K for the fiscal year ended December 31, 2008.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This report contains certain statements that may be deemed "forward-looking statements" within the meaning of United States of America securities laws. All statements, other than statements of historical fact, that address activities, events or developments that we intend, expect, project, believe or anticipate and similar expressions or future conditional verbs such a will, should, would, could or may occur in the future are forward-looking statements. Such statements are based upon certain assumptions and assessments made by our management in light of their experience and their perception of historical trends, current conditions, expected future developments and other factors they believe to be appropriate.

These statements include, without limitation, statements about our anticipated expenditures, including those related to clinical research studies, and general and administrative expenses; the potential size of the market for our products, future development and/or expansion of our products and therapies in our markets, ability to generate product revenues or effectively manage our gross profit margins; our ability to obtain regulatory clearance; expectations as to our future performance; the "Liquidity and Capital Resources" section of this report, including our need for additional financing and the availability thereof; and the potential enhancement of our cash position through development, marketing, and licensing arrangements. Our actual results will likely differ, perhaps materially, from those anticipated in these forward-looking statements as a result of various factors, including: our need and ability to raise additional cash, our joint ventures, risks associated with laws or regulatory requirements applicable to us, market conditions, product performance, unforeseen litigation, and competition within the regenerative medicine field, to name a few. The forward-looking statements included in this report are subject to a number of additional material risks and uncertainties, including but not limited to the risks described our filings with the Securities and Exchange Commission and under the "Risk Factors" section in Part II below.

We encourage you to read our Risk Factors descriptions carefully. We caution you not to place undue reliance on the forward-looking statements contained in this report. These statements, like all statements in this report, speak only as of the date of this report (unless an earlier date is indicated) and we undertake no obligation to update or revise the statements except as required by law. Such forward-looking statements are not guarantees of future performance and actual results will likely differ, perhaps materially, from those suggested by such forward-looking statements.

Liquidity

We incurred losses of $826,000 and $6,924,000 for the three and six months ended June 30, 2009 and $8,413,000 and $16,686,000 for the three and six months ended June 30, 2008, respectively. We have an accumulated deficit of $166,212,000 as of June 30, 2009. Additionally, we have used net cash of $12,053,000 and $18,184,000 to fund our operating activities for six months ended June 30, 2009 and 2008, respectively**.** To date these operating losses have been funded primarily from outside sources of invested capital.

During 2008, we initiated our commercialization activities while simultaneously pursuing available financing sources to support operations and growth. We have had, and continue to have, an ongoing need to raise additional cash from outside sources to fund our operations. However, our ability to raise capital has been adversely affected by current credit conditions and the downturn in the financial markets and the global economy. Accordingly, the combination of these facts raises substantial doubt as to the Company's ability to continue as a going concern. The accompanying consolidated condensed financial statements have been prepared assuming that the Company will continue as a going concern. If we are unsuccessful in our efforts to raise outside capital in the near term, we will be required to further reduce our research, development, and administrative operations, including reduction of our employee base, in order to offset the lack of available funding.

We are pursuing financing opportunities in both the private and public debt and equity markets as well as through strategic corporate partnerships. We have an established history of raising capital through these platforms, and we are currently involved in discussions with multiple parties. In March 2009, we raised approximately $10,000,000 in gross proceeds from the sale to institutional investors of a total of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common stock at a purchase price of $2.10 per unit, with each unit consisting of one (1) share and one and four-tenths (1.4) warrants (with an exercise price of $2.59 per share). In May 2009, we raised approximately $4,242,000 in net proceeds from a private placement of 1,864,783 unregistered shares of common stock and 3,263,380 common stock warrants at a purchase price of $2.28 per unit, with each unit consisting of one (1) share and one and three-fourths (1.75) warrants (with an exercise price of $2.62 per share) to a syndicate of investors. Additionally, we entered into a common stock purchase agreement with Seaside 88, LP relating to the offering and sale of a total of up to 7,150,000 shares of our common stock. The agreement requires us to issue and Seaside to buy 275,000 shares of our common stock once every two weeks, subject to the satisfaction of customary closing conditions, with the offering price equal to 87% of our common stock's volume weighted average trading price during the ten-day trading period immediately preceding each closing date. If with respect to any subsequent closing, our common stock's ten day volume weighted average trading price is below $2.50 per share, then the closing will not occur. We raised approximately $852,000 in gross proceeds from the sale of 275,000 at a purchase price of $3.10 at our initial closing on June 22, 2009.

We expect to continue to utilize our cash and cash equivalents to fund operations through the next nine months, subject to minimum cash and cash liquidity requirements of the Loan and Security Agreement with the Lenders, which requires that we maintain at least three months of cash on hand to avoid an event of default under the Loan and Security Agreement. We continue to seek additional cash through product revenues, strategic collaborations, and future sales of equity or debt securities. To the extent closing conditions are met, we expect the Seaside 88, LP agreement will significantly extend our available resources and may reduce our need for alternate financing. Subsequent to the quarter ended June 30, 2009, we completed three scheduled closings with Seaside 88, LP during the period of July 1, 2009 through our filing date of August 10, 2009 raising in aggregate approximately $2,455,000 in gross proceeds from the sale of 825,000 shares of our common stock. Although there can be no assurance given, we hope to successfully complete one or more additional financing transactions or corporate partnerships in the near-term (including future closings of the Seaside 88, LP agreement). Without this additional capital, current working capital, cash generated from sales and containment of costs will not provide adequate funding for operations at their current levels. If such efforts are not successful, we will need to further reduce or curtail operations and this could negatively affect our ability to achieve corporate growth goals. We have implemented an operating plan that reduces certain operations to focus almost entirely on the supply of current products to existing or new distribution channels. In addition, as part of this plan, there will be reduced expenditures for ongoing scientific research, product development or clinical research. This impacts research and development headcount, external subcontractor expenditures, capital outlay and general and administrative expenditures related to the supervision of such activities. In parallel, we significantly reduced administrative staff and salaries consistent with the overall reduction in scope of operations. In aggregate, such reductions resulted in eliminations of roles for the many of the Company's staff (our overall headcount decreased to 84 employees as of June 30, 2009 as compared to 126 employees as of December 31, 2008) and the deferral or elimination of most research and development projects until such time that cash resources are available from operations or outside sources to re-establish development and growth plans.

Overview

Cytori Therapeutics, Inc. develops and globally commercializes regenerative medicine technologies, which provide real-time, point-of-care access to clinical grade regenerative cells. The Company's main product is the Celution® System, the first and only automated device that enables rapid extraction, concentration and re-implantation of a patient's adipose regenerative cells in a single surgical procedure. Our technology is incorporated into two product families. The Celution® System-related products are sold throughout Europe and Asia primarily into the cosmetic and reconstructive surgery market and are under evaluation by the U.S. FDA. Our StemSource® products are sold globally for cell banking and research applications. We are also developing additional clinical uses of our technology for the treatment of multiple medical conditions, including cardiovascular disease, urinary tract disorders and wound related conditions.

To support future sales into the European and Asian cosmetic and reconstructive surgery market, we are seeking to expand indications-for-use and reimbursement for the use of the device in post-partial mastectomy defect reconstruction through a company-sponsored 70-patient European post-marketing study, RESTORE-2. In the United States, we are continuing to seek regulatory and marketing approval for the Celution® 700 System family of products. We are developing additional clinical applications for the Celution System output, which we hope to make commercially available in the future. Cardiovascular disease represents our most advanced product pipeline application. To date, we have completed enrollment in two safety and feasibility studies, one for heart attack and another for chronic heart disease. Results from these studies are expected to be reported in the first half of 2010.

The StemSource® Cell Bank products are being offered through our commercialization partner Green Hospital Supply in Japan and additional Asian countries. In addition, GE Healthcare is commercializing both the StemSource® Banking and Research products in select European countries and in North America.

In partnership with Olympus Corporation, we continued to work towards finalizing the second commercial generation Celution®

System. This version will be manufactured by the Olympus-Cytori Joint venture. Currently, we manufacture the first commercial generation Celution® System and consumables at our corporate headquarters and provide all servicing for the device through our regional offices.

Olympus Partnership

On November 4, 2005, we entered into a strategic development and manufacturing joint venture agreement and other related agreements, which we refer to as the JV Agreements, with Olympus Corporation. As part of the terms of the JV Agreements, we formed a joint venture, Olympus-Cytori, Inc., which we refer to as the Joint Venture, to develop and manufacture future generation devices based on our Celution® System platform.

Under the Joint Venture Agreements:

- Olympus paid $30,000,000 for its 50% interest in the Joint Venture. Moreover, Olympus simultaneously entered into a License/Joint Development Agreement with the Joint Venture and us to develop a second generation commercial system and manufacturing capabilities.

- We licensed our device technology, including the Celution® System platform and certain related intellectual property, to the Joint Venture for use in future generation devices. These devices will process and purify adult stem and regenerative cells residing in adipose (fat) tissue for various therapeutic clinical applications. In exchange for this license, we received a 50% interest in the Joint Venture, as well as an initial $11,000,000 payment from the Joint Venture; the source of this payment was the $30,000,000 contributed to the Joint Venture by Olympus. Moreover, upon receipt of a CE mark for the first generation Celution® System platform in January 2006, we received an additional $11,000,000 development milestone payment from the Joint Venture.

Put/Calls and Guarantees

The Shareholders' Agreement between Cytori and Olympus provides that in certain specified circumstances of insolvency or if we experience a change in control, Olympus will have the rights to (i) repurchase our interests in the Joint Venture at the fair value of such interests or (ii) sell its own interests in the Joint Venture to Cytori at the higher of (a) $22,000,000 or (b) the Put's fair value.

As of June 30, 2009, the estimated fair value of the Put was $1,640,000. Fluctuations in the estimated Put value are recorded in the statements of operations as a component of change in fair value of option liabilities. The estimated fair value of the Put has been recorded as a long-term liability on the consolidated condensed balance sheets in the caption option liability.

The Put has no expiration date. Accordingly, we will continue to recognize a liability for the Put and mark it to market each quarter until it is exercised or until the arrangements with Olympus are amended.

Olympus-Cytori Joint Venture

The Joint Venture currently has exclusive access to our technology for the development, manufacture, and supply of the devices (second generation and beyond) for all therapeutic applications. Once a later generation Celution® System is developed and approved by regulatory agencies, the Joint Venture would sell such systems exclusively to us at a formula-based transfer price; we have retained marketing rights to the second generation devices for all therapeutic applications of adipose stem and regenerative cells.

We have worked closely with Olympus' team of scientists and engineers to design the future generations Celution® System so that it will contain certain product enhancements and can be manufactured in a streamlined manner.

In August 2007, we entered into a License and Royalty Agreement with the Joint Venture which allowed us to commercially launch the Celution® System platform earlier than we could have otherwise done so under the terms of the Joint Venture Agreements. The Royalty Agreement provides for the sale of the Cytori-developed Celution® System platform, including the Celution® 800/CRS and StemSource® 900/MB, until such time as the Joint Venture's products are commercially available for the same market served by the Cytori platform, subject to a reasonable royalty that will be payable to the Joint Venture for all such sales.

We account for our investment in the Joint Venture under the equity method of accounting.

Other Related Party Transactions

In a separate agreement entered into on February 23, 2006, we granted Olympus an exclusive right to negotiate a commercialization collaboration for the use of adipose regenerative cells for a specific therapeutic area outside of cardiovascular disease. In exchange for this right, we received a $1,500,000 payment from Olympus, which was non-refundable but could be applied

towards a definitive commercial collaboration in the future. As part of this agreement, Olympus would conduct market research and pilot clinical studies in collaboration with us for the therapeutic area up to December 31, 2008 when this exclusive right expired. The $1,500,000 payment was received in the second quarter of 2006 and recorded as deferred revenues, related party. Accordingly, on December 31, 2008, we recognized $1,500,000 as other development revenue and reduced our deferred revenues, related party balance for the same amount.

On February 8, 2008, we agreed to sell 2,000,000 shares of unregistered common stock to Green Hospital Supply, Inc. for $12,000,000 cash, or $6.00 per share, in a private stock placement. On February 29, 2008, we closed the first half of the private placement with Green Hospital Supply, Inc. and received $6,000,000. We closed the second half of the private placement on April 30, 2008 and received the second payment of $6,000,000.

In August 2008, we received an additional $6,000,000 from Olympus in a private placement of 1,000,000 unregistered shares of our common stock and a warrant to purchase an additional 500,000 shares of our common stock at an original exercise price of $8.50 per share. The purchase price was $6.00 per unit (with each unit consisting of one share and 50% warrant coverage). The warrant is exercisable anytime after February 11, 2009 and will expire on August 11, 2013.

Thin Film Japan Distribution Agreement

In 2004, we sold the majority of our Thin Film business to MAST Biosurgery AG. We retained all rights to Thin Film business in Japan (subject to a purchase option of MAST, which expired in May 2007), and we received back from MAST a license of all rights to Thin Film technologies in the spinal field, exclusive at least until 2012, and the field of regenerative medicine, non-exclusive on a perpetual basis.

In the third quarter of 2004, we entered into a Distribution Agreement with Senko Medical Trading Company. Under this agreement, we granted to Senko an exclusive license to sell and distribute certain Thin Film products in Japan. Specifically, the license covers Thin Film products with the following indications: anti-adhesion; soft tissue support; and minimization of the attachment of soft tissues. The Distribution Agreement with Senko commences upon "commercialization." Commercialization will occur when one or more Thin Film product registrations are completed with the Japanese Ministry of Health, Labour and Welfare, or MHLW. Following commercialization, the Distribution Agreement has a duration of five years and is renewable for an additional five years after reaching mutually agreed minimum purchase guarantees.

We received a $1,500,000 upfront license fee from Senko. We have recorded the $1,500,000 received as a component of deferred revenues in the accompanying consolidated condensed balance sheet. Half of the license fee is refundable if the parties agree commercialization is not achievable and a proportional amount is refundable if we terminate the arrangement, other than for material breach by Senko, before three years post-commercialization.

Under the Distribution Agreement, we will also be entitled to earn additional payments from Senko based on achieving defined milestones. On September 28, 2004, we notified Senko of completion of the initial regulatory application to the MHLW for the Thin Film product. As a result, we became entitled to a nonrefundable payment of $1,250,000, which we received in October 2004 and had recorded as a component of deferred revenues. We did not recognize any development revenues with respect to Senko during the three and six months ended June 30, 2009 and 2008.

Results of Operations

Our overall net losses for the three and six months ended June 30, 2009 were $826,000 and $6,924,000 as compared to the net losses for the three and six months ended June 30, 2008 of $8,413,000 and $16,686,000, respectively. The decrease in the losses is primarily due to the recognition of non-cash development revenue in the second quarter 2009 of $7,250,000 offset by a non-cash expense for the change in fair value of warrants of $2,133,000 and $1,112,000 for the three and six months ended June 30, 2009, respectively, and reduction of operating expenses implemented by the management. Additional explanation for fluctuation of each of the revenue and expense line items is provided in the later part of this section of the Management's Discussion and Analysis of Financial Condition and Results of Operations. We experienced minimal activity in the MacroPore operating segment for the three and six months ended June 30, 2009 and 2008. We currently expect our net operating loss for 2009 will be approximately $18,000,000 to $20,000,000.

Product revenues

Product revenues consisted of revenues from our Celution® System products and Celution® StemSource® Cell Bank.

The following table summarizes the components for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
Celution® Systems				
Related party	$ 9,000	$ 28,000	$ 573,000	$ 28,000
Third party	1,268,000	1,376,000	2,616,000	1,529,000
Total product revenues	$ 1,277,000	$ 1,404,000	$ 3,189,000	$ 1,557,000
% attributable to Green Hospital Supply, Inc.	0.7%	—	18.0%	—
% attributable to Olympus	—	2.0%	—	1.8%

Beginning in March of 2008, we began sales and shipments of our Celution® 800/CRS System to the European and Asia-Pacific reconstructive surgery markets. Assuming all other applicable revenue recognition criteria have been met, revenue for these product sales will be recognized upon delivery to the customer, as all risks and rewards of ownership have been substantively transferred to the customer at that point. For product sales to customers who arrange for and manage all aspects of the shipping process, we recognize revenue upon shipment from our facilities. For product sales that include a combination of equipment, services, or other multiple deliverables that will be provided in the future, we defer an estimate of the fair value of those future deliverables from product revenue until such deliverables have been provided or earned. Shipping and handling costs that are billed to our customers are classified as revenue.

The future. We expect to continue to generate regenerative cell technology product revenues during 2009 from Celution® 800/CRS and consumable sales in Europe and we expect to generate product revenues from StemSource® Cell Bank sales in Japan through our distribution partner Green Hospital Supply, Inc, as well as StemSource® banking and research products in the U.S. through our distribution partner GE Healthcare. Additionally, we expect to have Thin Film product revenues when commercialization of the Thin Film products in Japan occurs and we begin Thin Film shipments to Senko, pending regulatory approval.

Cost of product revenues

Cost of product revenues for 2009 and 2008 relate to Celution® System products and a Celution® StemSource® Cell Bank and includes material, manufacturing labor, and overhead costs. The following table summarizes the components of our cost of revenues for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
Cost of product revenues	$ 765,000	$ 662,000	$ 1,835,000	$ 716,000
Share-based compensation	11,000	13,000	28,000	19,000
Total cost of product revenues	$ 776,000	$ 675,000	$ 1,863,000	$ 735,000
Total cost of product revenues as % of product revenues	60.8%	48.1%	58.4%	47.2%

- The increase in cost of product revenues for the three and six months ended June 30, 2009 as compared to the same periods in 2009 was due to increase in Celution® System product sales, for which initial revenue was recognized during the three months ended March 31, 2008, as our commercialization date was March 1, 2008. We also recorded revenue for a StemSource® Cell Bank that was installed in the first quarter of 2009. For the three and six months ended June 30, 2008, cost of sales included an economic benefit of approximately $292,000 and $327,000, respectively, related to material cost and labor/overhead previously expensed as research and development prior to commercialization date of March 1, 2008 that was sold during the three and six months ended June 30, 2008. Cost of product revenues as a percentage of product revenues was 60.8% and 58.4% for the three and six months ended June 30, 2009 and 48.1% and 47.2% for the three and six months ended June 30, 2008, respectively. Some fluctuation in this percentage is to be expected due to the product mix as well as mix of distributor and direct sales comprising the revenue for the period.

· Cost of product revenues included approximately $11,000 and $28,000 of share-based compensation expense for the three and six months ended June 30, 2009, respectively. In comparison, cost of product revenues included approximately $13,000 and $19,000 of share-based compensation expense for the three and six months ended June 30, 2008, respectively For further details, see share-based compensation discussion below.

The future. We expect to continue to see variation in our gross profit margin as the product mix comprising revenues fluctuates. Additionally, we expect to incur costs related to our MacroPore products if and when commercialization is achieved for our Japan Thin Film product line.

Development revenues

The following table summarizes the components of our development revenues for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
Development (Olympus)	$ 7,250,000	$ —	$ 7,250,000	$ 774,000
Research grant (NIH)	13,000	—	20,000	—
Regenerative cell storage services and other	1,000	12,000	2,000	49,000
Total regenerative cell technology	$ 7,264,000	$ 12,000	$ 7,272,000	$ 823,000

We recognize deferred revenues, related party, as development revenue when certain performance obligations are met (i.e., using a proportional performance approach). In the second quarter of 2009, we recognized $7,250,000 of revenue associated with our arrangements with Olympus as a result of achieving two clinical milestones during the quarter. The clinical milestones reflect the achievement of the primary goals of safety and feasibility as well as the completion of the enrollment process for both of our clinical cardiac trials. In the first quarter of 2008, we recognized $774,000 of revenue associated with our arrangements with Olympus.

The research grant revenue relates to our agreement with the National Institutes of Health (“NIH”). Under this arrangement, the NIH reimburses us for “qualifying expenditures” related to research on Adipose Tissue-Derived Cells for Vascular Cell Therapy. To receive funds under the grant arrangement, we are required to (i) demonstrate that we incurred “qualifying expenses,” as defined in the grant agreement between the NIH and us, (ii) maintain a system of controls, whereby we can accurately track and report all expenditures related solely to research on Adipose Tissue-Derived Cells for Vascular Therapy, and (iii) file appropriate forms and follow appropriate protocols established by the NIH.

During the three and six months ended June 30, 2009, we incurred $13,000 and $20,000 in qualified expenditures, respectively. We recognized a total of $13,000 and $20,000 in revenues for the three six months ended June 30, 2009, which included allowable grant fees as well as cost reimbursements.

The future. We expect to recognize additional development revenues from our regenerative cell technology segment during the remainder of 2009, as the anticipated completion for the next phase of our Joint Venture and other Olympus product development performance obligations is in 2009. If we are successful in achieving certain milestone points related to these activities, we may recognize approximately $1,000,000 in revenues in the second half of 2009. The exact timing of when amounts will be reported in revenue will depend on internal factors (for instance, our ability to complete certain contributions and obligations that we have agreed to perform) as well as external considerations, including obtaining certain regulatory clearances and/or approvals related to the Celution® System. The cash for these contributions and obligations was received when the agreement was signed and no further related cash payments will be made to us.

We will continue to recognize revenue from the Thin Film development work we are performing on behalf of Senko, based on the relative fair value of the milestones completed as compared to the total efforts expected to be necessary to obtain regulatory clearance from the MHLW. We are still awaiting regulatory clearance from the MHLW in order for initial commercialization to occur. Accordingly, we expect to recognize approximately $1,129,000 (consisting of $879,000 in deferred revenues plus a non-refundable payment of $250,000 to be received upon commercialization) in revenues associated with this milestone arrangement if and when regulatory approval is achieved. Moreover, we expect to recognize $500,000 per year associated with deferred Senko license fees over a three-year period following commercialization, if achieved, as the refund rights associated with the license payment expire.

Research and development expenses

Research and development expenses include costs associated with the design, development, testing and enhancement of our products, regulatory fees, the purchase of laboratory supplies, pre-clinical studies and clinical studies. The following table summarizes the components of our research and development expenses for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
General research and development	$ 2,448,000	$ 4,502,000	$ 5,013,000	$ 8,484,000
Development milestone (Joint Venture)	337,000	371,000	1,127,000	1,213,000
Share-based compensation	134,000	161,000	248,000	301,000
Total research and development expenses	$ 2,919,000	$ 5,034,000	$ 6,388,000	$ 9,998,000

- Research and development expenses relate to the development of a technology platform that involves using adipose tissue as a source of autologous regenerative cells for therapeutic applications. These expenses, in conjunction with our continued development efforts related to our Celution® System, result primarily from the broad expansion of our research and development efforts enabled by the funding we received from Olympus in 2005 and 2006 and from other investors during the last few years. Labor-related expenses, not including share-based compensation, decreased by $834,000 and $1,290,000 for the three and six months ended June 30, 2009, respectively, as compared to the same periods in 2008 primarily due to the decrease in headcount for our research and development department as a result of achievement of commercialization and transfer of employees from research and development to the manufacturing department as well as reduction in force implemented by management at the end first quarter of 2009 and third quarter of 2008 in efforts to cut costs. Professional services expense decreased by $386,000 and $690,000 for the three and six months ended June 30, 2009, respectively, as compared to the same periods in 2008. This was due to a decreased use of consultants and temporary labor for the three and six months ended June 30, 2009. Expenses for supplies decreased by $169,000 and $711,000 for the three and six months ended June 30, 2009, respectively, as compared to the same periods in 2008, primarily due to purchases of production supplies in 2008 prior to the related product line commercialization, which occurred on March 1, 2008.

- Expenditures related to the Joint Venture with Olympus, which are included in the variation analysis above, include costs that are necessary to support the commercialization of future generation devices based on our Celution® System. These development activities, which began in November 2005, include performing pre-clinical and clinical studies, seeking regulatory approval, and performing product development related to therapeutic applications for adipose regenerative cells for multiple large markets. For the three and six months ended June 30, 2009, costs associated with the development of the device were $337,000 and $1,127,000, respectively. For the three and six months ended June 30, 2008, costs associated with the development of the device were $371,000 and $1,213,000, respectively. The decrease in the costs related to the Joint Venture with Olympus is primarily due to the completion of product development milestone activities. The three months ended June 30, 2009 and 2008 expenses were composed of $145,000 and $176,000 in labor and related benefits, $150,000 and $80,000 in consulting and other professional services, $15,000 and $14,000 in supplies and $27,000 and $101,000, respectively, in other miscellaneous expense. The six months ended June 30, 2009 and 2008 expenses were composed of $411,000 and $660,000 in labor and related benefits, $474,000 and $230,000 in consulting and other professional services, $186,000 and $48,000 in supplies and $56,000 and $275,000, respectively, in other miscellaneous expense.

- Share-based compensation for research and development was $134,000 and $248,000 for the three and six months ended June 30, 2009, respectively. In comparison, share-based compensation for research and development was $161,000 and $301,000 for the three and six months ended June 30, 2008, respectively. See share-based compensation discussion below for more details.

The future. Our strategy is to substantially reduce our research and development expenditures in 2009 and we anticipate expenditures in this area to be well below the expenditures in 2008 as we shift our focus toward manufacturing and sales (see additional discussion regarding liquidity at the beginning of Item 2, Management's Discussion and Analysis of Financial Condition and Results of Operations).

Sales and marketing expenses

Sales and marketing expenses include costs of marketing personnel, tradeshows, physician training, and promotional activities and materials. The following table summarizes the components of our sales and marketing expenses for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
International sales and marketing	$ 1,342,000	$ 1,033,000	$ 2,515,000	$ 1,909,000
Share-based compensation	121,000	84,000	233,000	165,000
Total sales and marketing expenses	$ 1,463,000	$ 1,117,000	$ 2,748,000	$ 2,074,000

- The increase in international sales and marketing expense for the three and six months ended June 30, 2009 as compared to the same periods in 2008 was mainly attributed to the increase in salary and related benefits expense of $183,000 and $411,000, respectively, not including share-based compensation, an increase in professional services of $72,000 and $103,000, respectively, which are due to our emphasis in seeking strategic alliances and/or co-development partners for our regenerative cell technology as well as sales and marketing efforts related to our commercialization activities.

- Share-based compensation for sales and marketing was $121,000 and $233,000 for the three and six months ended June 30, 2009, respectively. In comparison, share-based compensation for sales and marketing was $84,000 and $165,000 for the three and six months ended June 30, 2008, respectively. See share-based compensation discussion below for more details.

The future. We expect sales and marketing expenditures related to the regenerative cell technology to increase as we continue to expand our base of distribution partners, strategic alliances and co-development partners, as well as market our Celution® System and StemSource® Cell Bank (see additional discussion regarding liquidity at the beginning of Item 2, Management's Discussion and Analysis of Financial Condition and Results of Operations).

General and administrative expenses

General and administrative expenses include costs for administrative personnel, legal and other professional expenses, and general corporate expenses. The following table summarizes the general and administrative expenses for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
General and administrative	$ 1,942,000	$ 2,775,000	$ 4,036,000	$ 5,558,000
Share-based compensation	367,000	387,000	767,000	714,000
Total general and administrative expenses	$ 2,309,000	$ 3,162,000	$ 4,803,000	$ 6,272,000

- A decrease in general and administrative expenses (excluding share-based compensation) occurred during the three and six months ended June 30, 2009 as compared to the same periods in 2008. This resulted primarily from a decrease in salary and related benefits expense of $472,000 and $835,000, respectively, not including share-based compensation, and a decrease in professional services expenses of $400,000 and $723,000 for the three and six months ended June 30, 2009, respectively, as compared to the same periods in 2008. These decreases resulted from management efforts to decrease costs, see additional discussion regarding liquidity at the beginning of Item 2, Management's Discussion and Analysis of Financial Condition and Results of Operations.

- Share-based compensation expense related to general and administrative expense was $367,000 and $767,000 for the three and six months ended June 30, 2009, respectively. In comparison, share-based compensation expense related to general and administrative expense was $387,000 and $714,000 for the three and six months ended June 30, 2008, respectively. See share-based compensation discussion below for more details.

The future. We expect general and administrative expenses to be further reduced in 2009 compared to the prior year as we are seeking ways to minimize these expenses where possible (see additional discussion regarding liquidity at the beginning of Item 2, Management's Discussion and Analysis of Financial Condition and Results of Operations).

Share-based compensation expenses

The following table summarizes the components of our share-based compensation expenses for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
Cost of product revenues	$ 11,000	$ 13,000	$ 28,000	$ 19,000
Research and development-related	134,000	161,000	248,000	301,000
Sales and marketing-related	121,000	84,000	233,000	165,000
General and administrative-related	367,000	387,000	767,000	714,000
Total share-based compensation	$ 633,000	$ 645,000	$ 1,276,000	$ 1,199,000

Most of the share-based compensation expenses in the three and six month ended June 30, 2009 and 2008 related to the vesting of stock option awards to employees.

During the first quarter of 2009, we made a company-wide option grant to our non-executive employees to purchase up to 249,250 shares of our common stock, subject to a four-year graded vesting schedule. The grant date fair value of the awards was $2.00 per share. Following the reduction of our workforce at the end of this quarter, 182,100 of these options remained outstanding. The resulting share-based compensation expense of $364,200, net of estimated forfeitures, will be recognized as expense over the employees' respective service periods.

During the first quarter of 2009, we issued to our officers and directors options to purchase an aggregate of up to 585,000 shares of our common stock, with four-year graded vesting for our officers and two-year graded vesting for our directors. The grant date fair value of the awards granted to our officers and directors was $2.70 per share. The resulting share-based compensation expense of $1,579,500, net of estimated forfeitures, will be recognized as expense over the respective service periods.

During the second quarter of 2009, we made a company-wide option grant to our non-executive employees to purchase up to 155,580 shares of our common stock, subject to a four-year graded vesting schedule. The grant date fair value of the awards was $1.18 per share. The resulting share-based compensation expense of $183,000, net of estimated forfeitures, will be recognized as expense over the employees' respective service periods.

During the first quarter of 2008, we issued to our officers and directors stock options to purchase up to 450,000 shares of our common stock, with a four-year graded vesting schedule for our officers and two-year graded vesting for our directors. The grant date fair value of option awards granted to our officers and directors was $2.73 per share. The resulting share-based compensation expense of $1,230,000, net of estimated forfeitures, will be recognized as expense over the respective service periods.

The future. We expect to continue to grant options (which will result in an expense) to our employees and, as appropriate, to non-employee service providers. In addition, previously-granted options will continue to vest in accordance with their original terms. As of June 30, 2009, the total compensation cost related to non-vested stock options not yet recognized for all our plans is approximately $4,132,000. These costs are expected to be recognized over a weighted average period of 1.91 years.

Change in fair value of warrant liability

The following is a table summarizing the change in fair value of our warrant liability for the three and six months ended June 30, 2009:

	For the three months ended June 30, 2009	For the six months ended June 30, 2009
Change in fair value of warrant liability	$ 2,133,000	$ 1,112,000

· In August 2008, we issued common stock purchase warrants in connection with our private placement of 2,825,517 unregistered shares of common stock and 1,412,758 common stock warrants. The common stock purchase warrants were not issued with the intent of effectively hedging any future cash flow, fair value of any asset, liability or any net investment in a foreign operation. The warrants do not qualify for hedge accounting, and as such, all future changes in the fair value of these warrants will be recognized currently in earnings until such time as the warrants are exercised or expire. These common stock purchase warrants do not trade in an active securities market, and as such, we estimate the fair value of these warrants using the Black-Scholes option pricing model using the following assumptions:

	As of June 30, 2009	As of December 31, 2008
Expected term	4.12 years	4.61 years
Common stock market price	$ 3.61	$ 3.61
Risk-free interest rate	2.09%	1.55%
Expected volatility	73.65%	65.71%
Resulting fair value (per warrant)	$ 1.54	$ 1.20

Expected volatility is based primarily on historical volatility. Historical volatility was computed using daily pricing observations for recent periods that correspond to the expected term of the warrants. We believe this method produces an estimate that is representative of our expectations of future volatility over the expected term of these warrants. We currently have no reason to believe future volatility over the expected remaining life of these warrants is likely to differ materially from historical volatility. The expected life is based on the remaining term of the warrants. The risk-free interest rate is based on five-year U.S. Treasury securities.

The future. Future changes in the fair value of the warrant liability will be recognized currently in earnings until such time as the warrants are exercised or expire.

Change in fair value of option liability

The following is a table summarizing the change in fair value of our put option liability for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
Change in fair value of put option liability	$ (630,000)	$ (200,000)	$ (420,000)	$ —

· In reference to the Joint Venture, the Shareholders' Agreement between Cytori and Olympus provides that in certain specified circumstances of insolvency or if we experience a change in control, Olympus will have the right to (i) repurchase our interests in the Joint Venture at the fair value of such interests or (ii) sell its own interests in the Joint Venture to us at the higher of (a) $22,000,000 or (b) the Put's fair value. The Put value has been classified as a liability.

The valuations of the Put were completed using an option pricing theory-based simulation analysis (i.e., a Monte Carlo simulation). The valuations are based on assumptions as of the valuation date with regard to the market value of Cytori and the estimated fair value of the Joint Venture, the expected correlation between the values of Cytori and the Joint Venture, the expected volatility of Cytori and the Joint Venture, the bankruptcy recovery rate for Cytori, the bankruptcy threshold for Cytori, the probability of a change of control event for Cytori, and the risk-free interest rate.

The following assumptions were employed in estimating the value of the Put:

	June 30, 2009	December 31, 2008	November 4, 2005
Expected volatility of Cytori	72.00%	68.00%	63.20%
Expected volatility of the Joint Venture	72.00%	68.00%	69.10%
Bankruptcy recovery rate for Cytori	19.00%	21.00%	21.00%
Bankruptcy threshold for Cytori	$ 14,486,000	$ 16,740,000	$ 10,780,000
Probability of a change of control event for Cytori	2.87%	2.80%	3.04%
Expected correlation between fair values of Cytori and the Joint Venture in the future	99.00%	99.00%	99.00%
Risk free interest rate	3.53%	2.25%	4.66%

The future. The Put has no expiration date. Accordingly, we will continue to recognize a liability for the Put until it is exercised or until the arrangements with Olympus are amended.

Financing items

The following table summarizes interest income, interest expense, and other income and expense for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the nine months ended June 30,	
	2009	2008	2009	2008
Interest income	$ 4,000	$ 38,000	$ 18,000	$ 114,000
Interest expense	(374,000)	(18,000)	(774,000)	(41,000)
Other income (expense)	(16,000)	(53,000)	(108,000)	(43,000)
Total	$ (386,000)	$ (33,000)	$ (864,000)	$ 30,000

- Interest income decreased for the three and six months ended June 30, 2009 as compared to the same periods in 2008 due to a decrease in interest rates.

- Interest expense increased for the three and six months ended June 30, 2009 as compared to the same periods in 2008 due to cash interest and non-cash amortization of debt issuance costs and debt discount associated with a new term loan. In October 2008, we entered into a secured Loan Agreement with General Electric Capital Corporation and Silicon Valley Bank ("Lenders") to borrow up to $15,000,000. An initial term loan of $7,500,000, less fees and expenses, funded on October 14, 2008.

- The changes in other income (expense) in the three and six months ended June 30, 2009 as compared to the same periods in 2008 resulted primarily from changes in foreign currency exchange rates.

The future. Interest income earned in the remainder of 2009 will be dependent on our levels of funds available for investment as well as general economic conditions. Subject to our future financing activities, we expect interest expense to remain relatively consistent during the remainder of 2009.

Equity loss from investment in Joint Venture

The following table summarizes our equity loss from investment in joint venture for the three and six months ended June 30, 2009 and 2008:

	For the three months ended June 30,		For the six months ended June 30,	
	2009	2008	2009	2008
Equity loss in investment	$ (11,000)	$ (8,000)	$ (27,000)	$ (17,000)

The activity relates entirely to our 50% equity interest in the Joint Venture, which we account for using the equity method of accounting.

The future. We do not expect to recognize significant losses from the activities of the Joint Venture in the foreseeable future. Over the next one to two years, the Joint Venture is expected to incur labor costs related to the development of our second generation commercial system as well as general and administrative expenses, offset by royalty and other revenue expected to be generated by our current Celution® 800/CRS and future generation devices. Though we have no obligation to do so, we plan to contribute funding to the Joint Venture to cover any costs should the Joint Venture deplete its cash balance.

Liquidity and Capital Resources

Short-term and long-term liquidity

The following is a summary of our key liquidity measures at June 30, 2009 and December 31, 2008:

	June 30, 2009	December 31, 2008
Cash and cash equivalents	$ 13,920,000	$ 12,611,000
Current assets	$ 18,323,000	$ 17,225,000
Current liabilities	6,476,000	7,135,000
Working capital	$ 11,847,000	$ 10,090,000

In order to continue the operations of our regenerative cell business at or near current levels, we will need to raise additional capital in the near term.

During 2008, we initiated our commercialization activities while simultaneously pursuing available financing sources to support operations and growth. We have had, and continue to have, an ongoing need to raise additional cash from outside sources to fund our operations. However, our ability to raise capital has been adversely affected by current credit conditions and the downturn in the financial markets and the global economy. Accordingly, the combination of these facts raises substantial doubt as to the Company's ability to continue as a going concern. The accompanying consolidated condensed financial statements have been prepared assuming that the Company will continue as a going concern. If we are unsuccessful in our efforts to raise outside capital in the near term, we will be required to further reduce our research, development, and administrative operations, including reduction of our employee base, in order to offset the lack of available funding.

We are pursuing financing opportunities in both the private and public debt and equity markets as well as through strategic corporate partnerships. We have an established history of raising capital through these platforms, and we are currently involved in discussions with multiple parties. In March 2009, we raised approximately $10,000,000 in gross proceeds from the sale to institutional investors of a total of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common stock at a purchase price of $2.10 per unit, with each unit consisting of one (1) share and one and four-tenths (1.4) warrants (with an exercise price of $2.59 per share). In May 2009, we raised approximately $4,242,000 in net proceeds from a private placement of 1,864,783 unregistered shares of common stock and 3,263,380 common stock warrants at a purchase price of $2.28 per unit, with each unit consisting of one (1) share and one and three-fourths (1.75) warrants (with an exercise price of $2.62 per share) to a syndicate of investors. Additionally, we entered into a common stock purchase agreement with Seaside 88, LP relating to the offering and sale of a total of up to 7,150,000 shares of our common stock. The agreement requires us to issue and Seaside to buy 275,000 shares of our common stock once every two weeks, subject to the satisfaction of customary closing conditions, with the offering price equal to 87% of our common stock's volume weighted average trading price during the ten-day trading period immediately preceding each closing date. If with respect to any subsequent closing, our common stock's ten day volume weighted average trading price is below $2.50 per share, then the closing will not occur. We raised approximately $852,000 in gross proceeds from the sale of 275,000 at a purchase price of $3.10 at our initial closing on June 22, 2009.

We expect to continue to utilize our cash and cash equivalents to fund operations through the next nine months, subject to minimum cash and cash liquidity requirements of the Loan and Security Agreement with the Lenders, which requires that we maintain at least three months of cash on hand to avoid an event of default under the Loan and Security Agreement. We continue to seek additional cash through product revenues, strategic collaborations, and future sales of equity or debt securities. To the extent closing conditions are met, we expect the Seaside 88, LP agreement will significantly extend our available resources and may reduce our need for alternate financing. Subsequent to the quarter ended June 30, 2009, we completed three scheduled closings with Seaside 88, LP during the period of July 1, 2009 through our filing date of August 10, 2009 raising in aggregate approximately $2,455,000 in gross proceeds from the sale of 825,000 shares of our common stock. Although there can be no assurance given, we hope to successfully complete one or more additional financing transactions or corporate partnerships in the near-term (including future closings of the Seaside 88, LP agreement). Without this additional capital, current working capital, cash generated from sales and containment of costs will not provide adequate funding for operations at their current levels. If such efforts are not successful, we will need to further reduce or curtail operations and this could negatively affect our ability to achieve corporate growth goals. We have implemented an operating plan that reduces certain operations to focus almost entirely on the supply of current products to existing or new distribution channels. In addition, as part of this plan, there will be reduced expenditures for ongoing scientific research, product development or clinical research. This impacts research and development headcount, external subcontractor expenditures, capital outlay and general and administrative expenditures related to the supervision of such activities. In parallel, we significantly reduced administrative staff and salaries consistent with the overall reduction in scope of operations. In aggregate, such reductions resulted in

eliminations of roles for the many of the Company's staff (our overall headcount decreased to 84 employees as of June 30, 2009 as compared to 126 employees as of December 31, 2008) and the deferral or elimination of most research and development projects until such time that cash resources are available from operations or outside sources to re-establish development and growth plans. Based on estimated annualized impact of reductions described above, we believe that cash operating requirements in the near term may be reduced to a range of $1.0 to $1.2 million per month.

From inception to June 30, 2009, we have financed our operations primarily by:

- Issuing stock in pre-IPO transactions, a 2000 initial public offering in Germany, and stock option exercises,
- Generating revenues,
- Selling the bioresorbable implant CMF product line in September 2002,
- Selling the bioresorbable implant Thin Film product line (except for the territory of Japan), in May 2004,
- Licensing distribution rights to Thin Film in Japan, in exchange for an upfront license fee in July 2004 and an initial development milestone payment in October 2004,
- Obtaining a modest amount of capital equipment long-term financing,
- Selling 1,100,000 shares of common stock to Olympus under an agreement which closed in May 2005,
- Receiving upfront and milestone fees from our Joint Venture with Olympus, which was entered into in November 2005,
- Receiving funds in exchange for granting Olympus an exclusive right to negotiate in February 2006,
- Receiving $16,219,000 in net proceeds from a common stock sale under the shelf registration statement in August 2006,
- Receiving $19,901,000 in net proceeds from the sale of common stock plus common stock warrants under the shelf registration statement in February 2007,
- Receiving $6,000,000 in net proceeds from a private placement to Green Hospital Supply, Inc. in April 2007, and
- Receiving gross proceeds of $3,175,000 from the sale of our bioresorbable spine and orthopedic surgical implant product line to Kensey Nash in May 2007.
- Receiving $12,000,000 in net proceeds from a private placement to Green Hospital Supply, Inc. during first half 2008.
- Receiving $17,000,000 in gross proceeds in August 2008 from a private placement of 2,825,517 unregistered shares of common stock and 1,412,758 common stock warrants (with an original exercise price of $8.50 per share) to a syndicate of investors including Olympus Corporation, who acquired 1,000,000 unregistered shares and 500,000 common stock warrants in exchange for $6,000,000 of the total proceeds raised.
- Obtaining a term loan of $7,500,000 from General Electric Capital Corporation and Silicon Valley Bank (Lenders) in October 2008.
- Receiving approximately $10,000,000 in gross proceeds from sale to institutional investors of a total of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common with an exercise price of $2.59 per share in March 2009.
- Receiving approximately $4,242,000 in net proceeds from a private placement of 1,864,783 unregistered shares of common stock and 3,263,380 common stock warrants (with an exercise price of $2.62 per share) to a syndicate of investors in May 2009.
- In June 2009 we entered into a common stock purchase agreement with Seaside 88, LP relating to the offering and sale of a total of up to 7,150,000 shares of our common stock. The Agreement requires us to issue and Seaside to buy 275,000 shares of our common stock once every two weeks, at a discounted ten day volume weighted average pricing formula, subject to the satisfaction of customary closing conditions. Initial closing took place on June 22, 2009 for approximately $852,000 in gross proceeds.

We do not expect significant capital expenditures during the remainder of 2009.

Any excess funds are expected to be retained as cash equivalents in money market accounts.

Our cash requirements for remainder of 2009 and beyond will depend on numerous factors, including our successful restructuring of our operating plan and business strategies as described above. Under our previous operating plan, we would have expected to incur research and development expenses at high levels in our regenerative cell platform for an extended period of time. Under the new plan, we will seek to reduce these expenditures as much as possible.

The following summarizes our contractual obligations and other commitments at June 30, 2009, and the effect such obligations could have on our liquidity and cash flow in future periods (see additional discussion regarding Liquidity at the beginning of Item 2, Management's Discussion and Analysis of Financial Condition and Results of Operations):

	Payments due by period				
Contractual Obligations	**Total**	**Less than 1 year**	**1 – 3 years**	**3 – 5 years**	**More than 5 years**
Long-term obligations	$ 7,111,000	$ 2,564,000	$ 4,532,000	$ 15,000	$ —
Interest commitment on long-term obligations	976,000	611,000	362,000	3,000	—
Operating lease obligations	1,854,000	1,627,000	176,000	51,000	—
Minimum purchase requirements	2,125,000	1,488,000	637,000	—	—
Pre-clinical research study obligations	253,000	253,000	—	—	—
Clinical research study obligations	4,800,000	2,400,000	2,400,000	—	—
Total	$ 17,119,000	$ 8,943,000	$ 8,107,000	$ 69,000	$ —

Cash (used in) provided by operating, investing, and financing activities for the six months ended June 30, 2009 and 2008 is summarized as follows:

	For the six months ended June 30,	
	2009	**2008**
Net cash used in operating activities	$ (12,053,000)	$ (18,184,000)
Net cash used in investing activities	(18,000)	(296,000)
Net cash provided by financing activities	13,380,000	12,343,000

Operating activities

Net cash used in operating activities for both periods presented resulted primarily from expenditures related to our regenerative cell research and development efforts.

Research and development efforts and other operational activities, offset in part by product sales, generated an operating loss of $6,033,000 for the six months ended June 30, 2009. The operating cash impact of this loss was $12,053,000, after adjusting for the recognition of non-cash development revenue of $7,250,000, the consideration of non-cash share-based compensation, other adjustments for material non-cash activities, such as depreciation and amortization, change in fair value of option liabilities and warrants, changes in working capital due to timing of product shipments (accounts receivable) and payment of liabilities.

Research and development efforts, other operational activities, and a comparatively small amount of product sales generated an operating loss of $16,699,000 for the six months ended June 30, 2008. The operating cash impact of this loss was $18,184,000, after adjusting for the recognition of non-cash development revenue of $774,000, the consideration of non-cash share-based compensation of $1,199,000, other adjustments for material non-cash activities, such as depreciation and amortization, changes in working capital due to timing of product shipments (accounts receivable) and payment of liabilities.

Investing activities

Net cash used in investing activities for the six months ended June 30, 2009 and 2008 resulted from purchases of property and equipment.

Financing Activities

The net cash provided by financing activities for the six months ended June 30, 2009 related primarily to a March 2009 equity offering of approximately $10,000,000 in gross proceeds to institutional investors for a total of 4,771,174 shares of our common stock and warrants to purchase up to a total of 6,679,644 additional shares of our common stock and a May 2009 private placement of approximately $4,242,000 in net proceeds to a syndicate of investors for a total of 1,864,783 unregistered shares of common stock

and 3,263,380 common stock warrants.

The net cash provided by financing activities for the six months ended June 30, 2008 related mainly to the private issuance of 2,000,000 shares of unregistered common stock to Green Hospital Supply, Inc. for $12,000,000.

Critical Accounting Policies and Significant Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires us to make estimates and assumptions that affect the reported amounts of our assets, liabilities, revenues, and expenses, and that affects our recognition and disclosure of contingent assets and liabilities.

While our estimates are based on assumptions we consider reasonable at the time they were made, our actual results may differ from our estimates, perhaps significantly. If results differ materially from our estimates, we will make adjustments to our financial statements prospectively as we become aware of the necessity for an adjustment.

We believe it is important for you to understand our most critical accounting policies as these are policies that require us to make our most significant judgments and, as a result, could have the greatest impact on our future financial results. Below are the key updates to our accounting policies for the three months ended June 30, 2009. These accounting policies should be read in conjunction with the accounting policies included in our annual report on Form 10-K for the year ended December 31, 2008.

Warrant Liability

Effective January 1, 2009 we adopted the provisions of Emerging Issues Task Force ("EITF") Issue No. 07-5, "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock" ("EITF 07-5"). EITF 07-5 applies to any freestanding financial instruments or embedded features that have the characteristics of a derivative, as defined by SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," and to any freestanding financial instruments that are potentially settled in an entity's own common stock. As a result of adopting EITF 07-5, the original amount of 1,412,758 of our issued and outstanding common stock purchase warrants previously classified as a component of stockholders' deficit are now presented as liabilities.. These warrants had an original exercise price of $8.50 and expire in August 2013. As such, effective January 1, 2009 we reclassified the fair value of these common stock purchase warrants, which have exercise price reset features, from equity to liability status as if these warrants were treated as a derivative liability since their date of issue in August 2008. On January 1, 2009, we reclassified from additional paid-in capital, as a cumulative effect adjustment, $2.9 million to beginning accumulated deficit and $1.7 million to a long-term warrant liability to recognize the fair value of such warrants on that date. The fair value of these warrants increased to $2.8 million as of June 30, 2009, and we recognized a $2.1 million and $1.1 million loss from the change in fair value of warrants for the three and six months ended June 30, 2009, respectively.

These common stock purchase warrants were initially issued in connection with our August 2008 private placement of 2,825,517 unregistered shares of common stock and 1,412,758 common stock warrants. The common stock purchase warrants were not issued with the intent of effectively hedging any future cash flow, fair value of any asset, liability or any net investment in a foreign operation. The warrants do not qualify for hedge accounting, and as such, all future changes in the fair value of these warrants will be recognized currently in earnings until such time as the warrants are exercised or expire. These common stock purchase warrants do not trade in an active securities market, and as such, we estimate the fair value of these warrants using the Black-Scholes option pricing model using the following assumptions:

	As of June 30, 2009	As of December 31, 2008
Expected term	4.12 years	4.61 years
Common stock market price	$ 3.61	$ 3.61
Risk-free interest rate	2.09%	1.55%
Expected volatility	73.65%	65.71%
Resulting fair value (per warrant)	$ 1.54	$ 1.20

Expected volatility is based primarily on historical volatility. Historical volatility was computed using daily pricing observations for recent periods that correspond to the expected term of the warrants. We believe this method produces an estimate that is representative of our expectations of future volatility over the expected term of these warrants. We currently have no reason to believe future volatility over the expected remaining life of these warrants is likely to differ materially from historical volatility. The expected life is based on the remaining term of the warrants. The risk-free interest rate is based on five-year U.S. Treasury securities.

Revenue Recognition

Product Sales

We recognize revenue from product sales when the following fundamental criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the price to the customer is fixed or determinable and (iv) collection of the resulting accounts receivable is reasonably assured.

For all sales, we use a binding purchase order or a signed agreement as evidence of an arrangement. Revenue for these product sales will be recognized upon delivery to the customer, as all risks and rewards of ownership have been substantively transferred to the customer at that point. For Celution® 800/CRS System sales to customers who arrange for and manage the shipping process, we recognize revenue upon shipment from our facilities. Shipping and handling costs that are billed to our customers are classified as revenue, in accordance with Emerging Issues Task Force (EITF) Issue No. 00-10, "Accounting for Shipping and Handling Fees and Costs" ("EITF 00-10"). The customer's obligation to pay and the payment terms are set at the time of delivery and are not dependent on the subsequent use or resale of our product.

For those sales that include multiple deliverables, we allocate revenue based on the relative fair values of the individual components as determined in accordance with EITF Issue No. 00-21, "Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). When more than one element such as product maintenance or technical support services are included in an arrangement, we allocate revenue between the elements based on each element's relative fair value, provided that each element meets the criteria for treatment as a separate unit of accounting. An item is considered a separate unit of accounting if it has value to the customer on a standalone basis and there is objective and reliable evidence of the fair value of the undelivered items. Fair value is generally determined based upon the price charged when the element is sold separately. In the absence of fair value for a delivered element, we allocate revenue first to the fair value of the undelivered elements and allocate the residual revenue to the delivered elements. Fair values for undelivered elements are determined based on vendor-specific objective evidence. Deferred service revenue is recognized ratably over the period the services are provided. In the absence of fair value for an undelivered element, the arrangement is accounted for as a single unit of accounting, resulting in a deferral of revenue recognition for delivered elements until all undelivered elements have been fulfilled.

Concentration of Significant Customers

For the six months ended June 30, 2009, our sales were concentrated in three distributors and one direct customer, which in aggregate comprised 61% of our revenue recognized for the six months ended June 30, 2009. Our Asia-Pacific region sales accounted for 49% of our revenue recognized for the six months ended June 30, 2009. Additionally, one distributor and one direct customer accounted for 50% of total outstanding accounts receivable as of June 30, 2009. We continuously monitor the creditworthiness of our distributors and believe our sales to diverse end customers and to diverse geographies further serve to mitigate our exposure to credit risk.

Research and Development

We earn revenue for performing tasks under research and development agreements with both commercial enterprises, such as Olympus and Senko, and governmental agencies like the National Institutes of Health ("NIH"). Revenue earned under development agreements is classified as either research grant or development revenues depending on the nature of the arrangement. Revenues derived from reimbursement of direct out-of-pocket expenses for research costs associated with grants are presented in compliance with EITF Issue No. 99-19, "Reporting Revenue Gross as a Principal Versus Net as an Agent," and EITF Issue No. 01-14, "Income Statement Characterization of Reimbursements Received for "Out-of-Pocket" Expenses Incurred." In accordance with the criteria established by these EITF Issues, we record grant revenue for the gross amount of the reimbursement. The costs associated with these reimbursements are reflected as a component of research and development expense in our consolidated statements of operations. Additionally, research and development arrangements we have with commercial enterprises such as Olympus and Senko are considered a key component of our central and ongoing operations. Accordingly, when recognized, the inflows from such arrangements are presented as revenues in our consolidated statements of operations.

We received substantial funds from Olympus and Olympus-Cytori, Inc. during 2005 and 2006. We recorded upfront fees totaling $28,311,000 as deferred revenues, related party. In exchange for these proceeds, we agreed to (a) provide Olympus-Cytori, Inc. an exclusive and perpetual license to our therapeutic device technology, including the Celution® System platform and certain related intellectual property, and (b) provide future development contributions related to commercializing the Celution® System platform. The license and development services are not separable under EITF 00-21. The recognition of this deferred amount requires achievement of service related milestones, under a proportional performance methodology. If and as such revenues are recognized, deferred revenue will be decreased. Proportional performance methodology was elected due to the nature of our development obligations and efforts in support of the Joint Venture ("JV"), including product development activities and regulatory efforts to support the commercialization of the JV products. The application of this methodology uses the achievement of R&D

milestones as outputs of value to the JV. We received up-front, non-refundable payments in connection with these development obligations, which we have broken down into specific R&D milestones that are definable and substantive in nature, and which will result in value to the JV when achieved. Revenue will be recognized as the above mentioned R&D milestones are completed. Of the amounts received and deferred, we recognized development revenues of $7,250,000 during the second quarter of 2009 and $774,000 during the first quarter of 2008, respectively. All related development costs are expensed as incurred and are included in research and development expense on the statement of operations.

Under a Distribution Agreement with Senko, we granted to Senko an exclusive license to sell and distribute certain Thin Film products in Japan. We have also earned or will be entitled to earn additional payments under the Distribution Agreement based on achieving the defined research and development milestones. There was no development revenue recognized during the three and six months ended June 30, 2009 and 2008.

Goodwill Impairment Testing

In late 2002, we purchased StemSource, Inc. and recognized over $4,600,000 in goodwill associated with the acquisition, of which $3,922,000 remains on our balance sheet as of June 30, 2009. As required by Statement of Financial Accounting Standard No. 142, "Goodwill and Other Intangible Assets" ("SFAS 142"), we must test this goodwill at least annually for impairment as well as when an event occurs or circumstances change such that it is reasonably possible that impairment may exist. The application of the goodwill impairment test involves a substantial amount of judgment. The judgments employed may have an effect on whether a goodwill impairment loss is recognized.

In 2008, we completed our goodwill impairment testing using a combination of an income-based approach incorporating discounted projections of estimated future cash flows and a market-based approach. We concluded that the fair value of our main reporting unit exceeded its carrying value, and that none of our reported goodwill was impaired.

Variable Interest Entity (Olympus-Cytori Joint Venture)

FASB Interpretation No. 46 (revised 2003), "Consolidation of Variable Interest Entities - An Interpretation of ARB No. 51" ("FIN 46R") requires a variable interest entity, or VIE, to be consolidated by its primary beneficiary. Evaluating whether an entity is a VIE and determining its primary beneficiary involves significant judgment.

We concluded that the Olympus-Cytori Joint Venture was a VIE based on the following factors:

- Under FIN 46R, an entity is a VIE if it has insufficient equity to finance its activities. We recognized that the initial cash contributed to the Joint Venture formed by Olympus and Cytori ($30,000,000) would be completely utilized by the first quarter of 2006. Moreover, it was highly unlikely that the Joint Venture would be able to obtain the necessary financing from third party lenders without additional subordinated financial support – such as personal guarantees by one or both of the Joint Venture stockholders. Accordingly, the Joint Venture will require additional financial support from Olympus and Cytori to finance its ongoing operations, indicating that the Joint Venture is a VIE. We contributed $300,000 and $150,000 in the fourth quarter of 2007 and first quarter of 2006, respectively, to fund the Joint Venture's ongoing operations.

- Moreover, Olympus has a contingent put option that would, in specified circumstances, require Cytori to purchase Olympus's interests in the Joint Venture for a fixed amount of $22,000,000. Accordingly, Olympus is protected in some circumstances from absorbing all expected losses in the Joint Venture. Under FIN 46R, this means that Olympus may not be an "at-risk" equity holder, although Olympus clearly has decision rights over the operations of the Joint Venture.

Because the Joint Venture is undercapitalized, and because one of the Joint Venture's decision makers may be protected from losses, we have determined that the Joint Venture is a VIE under FIN 46R.

As noted previously, a VIE is consolidated by its primary beneficiary. The primary beneficiary is defined in FIN 46R as the entity that would absorb the majority of the VIE's expected losses or be entitled to receive the majority of the VIE's residual returns (or both).

Significant judgment was involved in determining the primary beneficiary of the Joint Venture. Under FIN 46R, we believe that Olympus and Cytori are "de facto agents" and, together, will absorb more than 50% of the Joint Venture's expected losses and residual returns. Ultimately, we concluded that Olympus, and not Cytori, was the party most closely related with the joint venture and, hence, its primary beneficiary. Our conclusion was based on the following factors:

- The business operations of the Joint Venture will be most closely aligned to those of Olympus (i.e., the manufacture of devices).

· Olympus controls the Board of Directors, as well as the day-to-day operations of the Joint Venture.

The application of FIN 46R involves substantial judgment. Had we consolidated the Joint Venture, though, there would be no effect on our net loss or shareholders' equity at June 30, 2009 or for the three or six months then ended. However, certain balance sheet and income statement captions would have been presented in a different manner. For instance, we would not have presented a single line item entitled investment in joint venture in our balance sheet but, instead, would have performed a line by line consolidation of each of the Joint Venture's accounts into our financial statements.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income (loss) in the years in which those temporary differences are expected to be recovered or settled. Due to our history of loss, a full valuation allowance is recognized against deferred tax assets.

In July 2006, FASB issued Interpretation No. 48, "Accounting for Uncertainty in Income Taxes—An Interpretation of FASB Statement No. 109" ("FIN 48"). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements in accordance with FASB Statement No. 109, "Accounting for Income Taxes", and prescribes a recognition threshold and measurement attributes for financial statement disclosure of tax positions taken or expected to be taken on a tax return. Under FIN 48, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Additionally, FIN 48 provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

Recent Accounting Pronouncements

In February 2008, the FASB issued Staff Position "Effective Date of FASB Statement No. 157" (FSP No. 157-2), which delayed the adoption date until January 1, 2009 for non-financial assets and liabilities that are measured at fair value on a non-recurring basis, such as goodwill and identifiable intangible assets. The adoption of SFAS 157 for non-financial assets and liabilities did not have a material impact on our consolidated condensed financial position or results of operations.

On January 1, 2009, we adopted SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements - an Amendment of ARB No. 51" ("SFAS 160"). SFAS 160 establishes new accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 is effective for annual periods beginning on or after December 15, 2008. The adoption of SFAS 160 did not have a significant effect on our consolidated condensed financial statements.

On January 1, 2009, we adopted SFAS No. 141 (revised 2007), "Business Combinations" ("SFAS 141R"). SFAS 141R retains the fundamental requirements of Statement No. 141 to account for all business combinations using the acquisition method (formerly the purchase method) and for an acquiring entity to be identified in all business combinations. However, the new standard requires the acquiring entity in a business combination to recognize all the assets acquired and liabilities assumed in the transaction; establishes the acquisition-date fair value as the measurement objective for all assets acquired and liabilities assumed; and requires the acquirer to disclose the information they need to evaluate and understand the nature and financial effect of the business combination. SFAS 141R is effective for acquisitions made on or after the first day of annual periods beginning on or after December 15, 2008. The adoption of SFAS 141R did not have a significant effect on our consolidated condensed financial statements.

On January 1, 2009, we adopted EITF Issue 07-1, "Accounting for Collaborative Arrangements" ("EITF 07-1"). EITF 07-1 requires collaborators to present the results of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. The guidance is effective for fiscal years beginning after December 15, 2008. The adoption of EITF 07-1 did not have a significant effect on our consolidated condensed financial statements.

Effective January 1, 2009, we adopted the provisions of Emerging Issues Task Force ("EITF") Issue No. 07-5, "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock" ("EITF 07-5"). EITF 07-5 applies to any freestanding financial instruments or embedded features that have the characteristics of a derivative, as defined by SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," and to any freestanding financial instruments that are potentially settled in an entity's own common stock. As a result of adopting EITF 07-5, the original amount of 1,412,758 of our issued and outstanding common stock purchase warrants previously treated as equity pursuant to the derivative treatment exemption were no longer afforded equity treatment. These warrants had an original exercise price of $8.50 and expire in August 2013. (see note 15 for

warrant adjustments) As such, effective January 1, 2009, we reclassified the fair value of these common stock purchase warrants, which have exercise price reset features, from equity to liability status as if these warrants were treated as a derivative liability since their date of issue in August 2008. On January 1, 2009, we reclassified from additional paid-in capital, as a cumulative effect adjustment, $2.9 million to beginning accumulated deficit and $1.7 million to a long-term warrant liability to recognize the fair value of such warrants on that date. The fair value of these warrants increased to $2.8 million as of June 30, 2009, and we recognized a $2.1 million and $1.1 million loss from the change in fair value of warrants for the three and six months ended June 30, 2009, respectively.

In April 2008, the FASB issued FASB Staff Position ("FSP") FAS 142-3, "Determination of the Useful Life of Intangible Assets." This FSP amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB Statement No. 142, *Goodwill and Other Intangible Assets*. The intent of this FSP is to improve the consistency between the useful life of a recognized intangible asset under Statement 142 and the period of expected cash flows used to measure the fair value of the asset under FASB Statement No. 141R, and other U.S. generally accepted accounting principles. This FSP is effective for our interim and annual financial statements beginning after November 15, 2008. The adoption of this FSP did not have a material impact on our consolidated condensed financial statements.

On January 1, 2009, we adopted FSP No. EITF 03-6-1, "Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities," (FSP EITF 03-6-1). FSP EITF 03-6-1 states that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. The adoption of FSP EITF 03-6-1 did not have a material impact on our consolidated condensed financial statements.

In November 2008, the FASB ratified EITF Issue No. 08-6, "Equity Method Investment Accounting Considerations" ("EITF 08-6"). EITF 08-6 applies to all investments accounted for under the equity method. It states that an entity shall measure its equity investment initially at cost. Contingent consideration should only be included in the initial measurement of the equity method investment if it is required to be recognized by specific authoritative guidance other than SFAS No. 141R. However, if any equity method investment agreement involves a contingent consideration arrangement in which the fair value of the investor's share of the investee's net assets exceeds the investor's initial cost, a liability should be recognized. An equity method investor is required to recognize other-than-temporary impairments of an equity method investment and shall account for a share issuance by an investee as if the investor had sold a proportionate share of its investment. Any gain or loss to the investor resulting from an investee's share issuance shall be recognized in earnings. EITF 08-6 shall be effective in fiscal years beginning on or after December 15, 2008, and interim periods within those fiscal years and shall be applied prospectively. The adoption of EITF 08-6 did not have a material impact on our consolidated condensed financial statements.

On April 1, 2009, we adopted the provisions of FSP No. FAS 107-1 and APB 28-1, "Interim Disclosures about Fair Value of Financial Instruments" ("FSP No. FAS 107-1 and APB 28-1"), on a prospective basis. This FSP amends FASB Statement No. 107, "Disclosures about Fair Value of Financial Instruments", to require disclosures regarding fair value of financial instruments in interim financial statements, as well as in annual financial statements. The adoption of the provisions of FSP No. FAS 107-1 and APB 28-1 did not affect our historical consolidated financial statements.

In May 2009, the FASB issued SFAS No. 165, "Subsequent Events" ("SFAS 165"), which sets forth principles and requirements for subsequent events, specifically (i) the period during which management should evaluate events or transactions that may occur for potential recognition and disclosure, (ii) the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date, and (iii) the disclosures that an entity should make about events and transactions occurring after the balance sheet date. SFAS 165 is effective for interim reporting periods ending after June 15, 2009. The adoption of SFAS 165 did not have a material impact on our consolidated condensed financial statements. We evaluated the potential occurrence of subsequent events through August 10, 2009, the date at which the financial statements were issued.

In June 2009, the FASB issued SFAS No. 167, "Amendments to FASB Interpretation No. 46(R)," ("SFAS 167"). SFAS 167 requires an enterprise to qualitatively assess the determination of the primary beneficiary (or "consolidator") of a variable interest entity, or VIE, based on whether the entity (1) has the power to direct matters that most significantly impact the activities of the VIE, and (2) has the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. SFAS 167 changes the consideration of kick-out rights in determining if an entity is a VIE and requires an ongoing reconsideration of the primary beneficiary. It also amends the events that trigger a reassessment of whether an entity is a VIE. SFAS 167 is effective as of the beginning of each reporting entity's first annual reporting period that begins after November 15, 2009, interim periods within that first annual reporting period, and for interim and annual reporting periods thereafter. Earlier adoption is prohibited. We expect to adopt SFAS 167 on January 1, 2010, and currently are in the process of evaluating the potential effect of the adoption on our financial statements.

In June 2009, FASB issued SFAS No. 168, "The FASB Accounting Standards CodificationTM and the Hierarchy of Generally Accepted Accounting Principles – a replacement of FASB Statement No. 162," ("SFAS 168"). SFAS 168 establishes the FASB

Accounting Standards Codification™ , or Codification, which will become the source of authoritative GAAP recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. The Codification will supersede all then-existing non-SEC accounting and reporting standards. All other non-SEC accounting literature which is not grandfathered or not included in the Codification will no longer be authoritative. Once the Codification is in effect, all of its content will carry the same level of authority. SFAS 168 will be effective for financial statements for interim or annual reporting periods ending after September 15, 2009. We expect to adopt SFAS 168 for the quarter ending September 30, 2009.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk related to fluctuations in foreign currency exchange rates.

Interest Rate Exposure

We are not subject to market risk due to fluctuations in interest rates on our long-term obligations as they bear a fixed rate of interest. Our exposure relates primarily to short-term investments, including funds classified as cash equivalents. As of June 30, 2009, all excess funds were invested in money market funds and other highly liquid investments, therefore our interest rate exposure is not considered to be material.

Foreign Currency Exchange Rate Exposure

Our exposure to market risk due to fluctuations in foreign currency exchange rates relates primarily to our activities in Europe and Japan. Transaction gains or losses resulting from cash balances and revenues have not been significant in the past and we are not engaged in any hedging activity in the Euro, the Yen or other currencies. Based on our cash balances and revenues derived from markets other than the United States for the year ended December 31, 2008, a hypothetical 10% adverse change in the Euro or Yen against the U.S. dollar would not result in a material foreign currency exchange loss. Consequently, we do not expect that reductions in the value of such sales denominated in foreign currencies resulting from even a sudden or significant fluctuation in foreign exchange rates would have a direct material impact on our financial position, results of operations or cash flows.

Notwithstanding the foregoing, the indirect effect of fluctuations in interest rates and foreign currency exchange rates could have a material adverse effect on our business, financial condition and results of operations. For example, foreign currency exchange rate fluctuations may affect international demand for our products. In addition, interest rate fluctuations may affect our customers' buying patterns. Furthermore, interest rate and currency exchange rate fluctuations may broadly influence the United States and foreign economies resulting in a material adverse effect on our business, financial condition and results of operations.

Under our Japanese Thin Film agreement with Senko, we would receive payments in the nature of royalties based on Senko's net sales. Such sales and resulting royalties would be Yen denominated.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed or furnished pursuant to the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by Rule 13a-15(b) under the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report of Form 10-Q. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective and were operating at a reasonable assurance level as of June 30, 2009.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended June 30, 2009 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we have been involved in routine litigation incidental to the conduct of our business. As of June 30, 2009, we were not a party to any material legal proceeding.

Notwithstanding the foregoing, we are the exclusive worldwide licensee of the Regents of the University of California or UC's rights to a certain patent and pending patent applications, including U.S. patent number 7,470,537, and formerly including the issued U.S. patent number 6,777,231, which we refer to as the '231 Patent , each relating to adipose-derived stem cells. In 2004 the University of Pittsburgh filed a lawsuit seeking a determination that its assignors, rather than UC's assignors, are the true inventors of the '231 Patent. On June 9, 2008 the United States District Court for the Central District of California ("the District Court") concluded that the University of Pittsburgh's assignors were the sole inventors of the '231 Patent, terminating UC's rights. The UC assignors appealed the District Court's decision, and on July 23, 2009, the United States Court of Appeals affirmed the decision of the District Court in terminating UC's rights to the '231 Patent. We agreed to reimburse (and we have paid) UC for certain legal costs they incurred for the 231 Patent litigation as a part of our license from UC. We were not a direct party to the '231 Patent, and our ongoing business activities and product development pipeline should not be affected by these events.

Item 1A. Risk Factors

In analyzing our company, you should consider carefully the following risk factors together with all of the other information included in this quarterly report on Form 10-Q. Factors that could adversely affect our business, operating results, and financial condition, as well as adversely affect the value of an investment in our common stock, include those discussed below, as well as those discussed above in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere throughout this quarterly report on Form 10-Q.

We are subject to the following significant risks, among others:

<u>We need to raise more cash in the near term</u>

We have almost always had negative cash flows from operations. Our business will continue to result in a substantial requirement for research and development expenses for several years, during which we may not be able to bring in sufficient cash and/or revenues to offset these expenses. We are required to raise capital from one or more sources in the near term to continue our operations at or close to the levels currently conducted. We believe that without raising additional capital from accessible sources of financing, as well as an increase in capital from our operations, we may not have adequate funding to complete the development, pre-clinical activities, clinical trials and marketing efforts required to successfully bring our current and future products to market. In addition, if we are not successful in raising additional cash we will be required to negotiate with General Electric Capital Corporation ("GECC") and Silicon Valley Bank ("SVB") to obtain an amendment to the cash liquidity requirements of the Loan and Security Agreement dated October 14, 2008 ("Loan Agreement"). If we are not successful in obtaining either the additional funding or cash liquidity relief then we could be in default under the Loan Agreement. If we are in default or if our senior secured lenders otherwise assert that there has been an event of default, they may seek to accelerate our senior secured loan and exercise their rights and remedies under the Loan Agreement, including the sale of our property and other assets. In such event, we may be forced to file a bankruptcy case or have an involuntary bankruptcy case filed against us or otherwise liquidate our assets. Any of these events would have a substantial and material adverse effect on our business, financial condition, results of operations, the value of our common stock and warrants and our ability to raise capital. There is no guarantee that adequate funds will be available when needed from additional debt or equity financing, arrangements with distribution partners, increased results of operations, or from other sources, or on terms attractive to us. Although we entered into a $15,000,000 loan facility with GECC and SVB in October 2008, we could not access the remaining $7,500,000 under that facility as we were not able satisfy certain financial conditions on or before December 12, 2008. The inability to obtain sufficient additional funds in the near term would, at a minimum, require us to delay, scale back, or eliminate some or all of our research or product development, manufacturing operations, clinical or regulatory activities, which could have a substantial negative effect on our results of operations and financial condition.

Continued turmoil in the economy could harm our business

Negative trends in the general economy, including trends resulting from an actual or perceived recession, tightening credit markets, increased cost of commodities, including oil, actual or threatened military action by the United States and threats of terrorist attacks in the United States and abroad, could cause a reduction of investment in and available funding for companies in certain industries, including ours. Our ability to raise capital has been and may continue to be adversely affected by current credit conditions and the downturn in the financial markets and the global economy.

We have never been profitable on an operational basis and expect significant operating losses for the next few years

We have incurred net operating losses in each year since we started business. As our focus on the Celution® System platform and development of therapeutic applications for its cellular output has increased, losses have resulted primarily from expenses associated with research and development activities and general and administrative expenses. While we are implementing cost reduction measures where possible, we nonetheless expect to continue operating in a loss position on a consolidated basis and that recurring operating expenses will be at high levels for the next several years, in order to perform clinical trials, additional pre-clinical research, product development, and marketing. As a result of our historic losses, we have historically been, and continue to be, reliant on raising outside capital to fund our operations as discussed in the prior risk factor.

Our business strategy is high-risk

We are focusing our resources and efforts primarily on development of the Celution® System family of products and the therapeutic applications of its cellular output, which requires extensive cash needs for research and development activities. This is a high-risk strategy because there is no assurance that our products will ever become commercially viable (commercial risk), that we will prevent other companies from depriving us of market share and profit margins by selling products based on our inventions and developments (legal risk), that we will successfully manage a company in a new area of business (regenerative medicine) and on a different scale than we have operated in the past (operational risk), that we will be able to achieve the desired therapeutic results using stem and regenerative cells (scientific risk), or that our cash resources will be adequate to develop our products until we become profitable, if ever (financial risk). We are using our cash in one of the riskiest industries in the economy (strategic risk). This may make our stock an unsuitable investment for many investors.

We must keep our joint venture with Olympus operating smoothly

Our business cannot succeed on the currently anticipated timelines unless our Joint Venture collaboration with Olympus goes well. We have given Olympus-Cytori, Inc. an exclusive license to manufacture future generation Celution® System devices. If Olympus-Cytori, Inc. does not successfully develop and manufacture these devices, we may not be able to commercialize any device or any therapeutic products successfully into the market. In addition, future disruption or breakup of our relationship would be extremely costly to our reputation, in addition to causing many serious practical problems.

We and Olympus must overcome contractual and cultural barriers. Our relationship is formally measured by a set of complex contracts, which have not yet been tested in practice. In addition, many aspects of the relationship will be non-contractual and must be worked out between the parties and the responsible individuals. The Joint Venture is intended to have a long life, and it is difficult to maintain cooperative relationships over a long period of time in the face of various kinds of change. Cultural differences, including language barrier to some degree, may affect the efficiency of the relationship.

Olympus-Cytori, Inc. is 50% owned by us and 50% owned by Olympus. By contract, each side must consent before any of a wide variety of important business actions can occur. This situation possesses a risk of potentially time-consuming and difficult negotiations which could at some point delay the Joint Venture from pursuing its business strategies.

Olympus is entitled to designate the Joint Venture's chief executive officer and a majority of its board of directors, which means that day-to-day decisions which are not subject to a contractual veto will essentially be controlled by Olympus. In addition, Olympus-Cytori, Inc. may require more money than its current capitalization in order to complete development and production of future generation devices. If we are unable to help provide future financing for Olympus-Cytori, Inc., our relative equity interest in Olympus-Cytori, Inc. may decrease.

Furthermore, under a License/Joint Development Agreement among Olympus-Cytori, Inc., Olympus, and us, Olympus will have a primary role in the development of Olympus-Cytori, Inc.’s next generation devices. Although Olympus has extensive experience in developing medical devices, this arrangement will result in a reduction of our control over the development and manufacturing of the next generation devices.

We have a limited operating history; operating results and stock price can be volatile like many life science companies

Our prospects must be evaluated in light of the risks and difficulties frequently encountered by emerging companies and particularly by such companies in rapidly evolving and technologically advanced biotech and medical device fields. Due to limited operating history and the transition from the MacroPore biomaterials to the regenerative medicine business, comparisons of our year-to-year operating results are not necessarily meaningful and the results for any periods should not necessarily be relied upon as an indication of future performance. All 2007 product revenues came from our spine and orthopedics implant product line, which we sold in May 2007.

From time to time, we have tried to update our investors' expectations as to our operating results by periodically announcing financial guidance. However, we have in the past been forced to revise or withdraw such guidance due to lack of visibility and predictability of product demand.

We are vulnerable to competition and technological change, and also to physicians' inertia

We compete with many domestic and foreign companies in developing our technology and products, including biotechnology, medical device, and pharmaceutical companies. Many current and potential competitors have substantially greater financial, technological, research and development, marketing, and personnel resources. There is no assurance that our competitors will not succeed in developing alternative products that are more effective, easier to use, or more economical than those which we have developed or are in the process of developing, or that would render our products obsolete and non-competitive. In general, we may not be able to prevent others from developing and marketing competitive products similar to ours or which perform similar functions.

Competitors may have greater experience in developing therapies or devices, conducting clinical trials, obtaining regulatory clearances or approvals, manufacturing and commercialization. It is possible that competitors may obtain patent protection, approval, or clearance from the FDA or achieve commercialization earlier than we can, any of which could have a substantial negative effect on our business. Finally, Olympus and our other partners might pursue parallel development of other technologies or products, which may result in a partner developing additional products competitive with ours.

We compete against cell-based therapies derived from alternate sources, such as bone marrow, umbilical cord blood and potentially embryos. Doctors historically are slow to adopt new technologies like ours, whatever the merits, when older technologies continue to be supported by established providers. Overcoming such inertia often requires very significant marketing expenditures or definitive product performance and/or pricing superiority.

We expect physicians' inertia and skepticism to also be a significant barrier as we attempt to gain market penetration with our future products. We believe we will need to finance lengthy time-consuming clinical studies (so as to provide convincing evidence of the medical benefit) in order to overcome this inertia and skepticism particularly in reconstructive surgery, cell preservation, the cardiovascular area and many other indications.

Most potential applications of our technology are pre-commercialization, which subjects us to development and marketing risks

We are in a relatively early stage of the path to commercialization with many of our products. We believe that our long-term viability and growth will depend in large part on our ability to develop commercial quality cell processing devices and useful procedure-specific consumables, and to establish the safety and efficacy of our therapies through clinical trials and studies. With our Celution® platform, we are pursuing new approaches for reconstructive surgery, preservation of stem and regenerative cells for potential future use, therapies for cardiovascular disease, gastrointestinal disorders and spine and orthopedic conditions. There is no assurance that our development programs will be successfully completed or that required regulatory clearances or approvals will be obtained on a timely basis, if at all.

There is no proven path for commercializing the Celution® System platform in a way to earn a durable profit commensurate with the medical benefit. Although we began to commercialize our reconstructive surgery products in Europe and certain Asian markets, and our cell banking products in Japan, Europe, and certain Asian markets in 2008, additional market opportunities for our products and/or services are likely to be another two to five years away.

Successful development and market acceptance of our products is subject to developmental risks, including failure of inventive imagination, ineffectiveness, lack of safety, unreliability, failure to receive necessary regulatory clearances or approvals, high commercial cost, preclusion or obsolescence resulting from third parties' proprietary rights or superior or equivalent products, competition from copycat products, and general economic conditions affecting purchasing patterns. There is no assurance that we or our partners will successfully develop and commercialize our products, or that our competitors will not develop competing technologies that are less expensive or superior. Failure to successfully develop and market our products would have a substantial negative effect on our results of operations and financial condition.

The timing and amount of Thin Film revenues from Senko are uncertain

The sole remaining product line in our MacroPore Biosurgery segment is our Japan Thin Film business. Our right to receive royalties from Senko, and to recognize certain deferred revenues, depends on the timing of MHLW approval for commercialization of the product in Japan. We have no control over this timing and our previous expectations have not been met. Also, even after commercialization, we will be dependent on Senko, our exclusive distributor, to drive product sales in Japan.

There is a risk that we could experience with Senko some of the same problems we experienced in our previous relationship with Medtronic, which was the exclusive distributor for our former bioresorbable spine and orthopedic implant product line.

We have limited manufacturing experience

We have limited experience in manufacturing the Celution® System platform or its consumables at a commercial level. With respect to our Joint Venture, although Olympus is a highly capable and experienced manufacturer of medical devices, there can be no guarantee that the Olympus-Cytori Joint Venture will be able to successfully develop and manufacture the next generation Celution® device in a manner that is cost-effective or commercially viable, or that development and manufacturing capabilities might not take much longer than currently anticipated to be ready for the market.

Although we have begun introduction of the Celution® 800 and the StemSource® 900-based Cell Bank in 2008, we cannot assure that we will be able to manufacture sufficient numbers of such products to meet the demand, or that we will be able to overcome unforeseen manufacturing difficulties for these sophisticated medical devices, as we await the availability of the Joint Venture next generation Celution® device.

In the event that the Olympus-Cytori Joint Venture is not successful, Cytori may not have the resources or ability to self-manufacture sufficient numbers of devices and consumables to meet market demand, and this failure may substantially extend the time it would take for us to bring a more advanced commercial device to market. This makes us significantly dependant on the continued dedication and skill of Olympus for the successful development of the next generation Celution® device.

We may not be able to protect our proprietary rights

Our success depends in part on whether we can maintain our existing patents, obtain additional patents, maintain trade secret protection, and operate without infringing on the proprietary rights of third parties.

There can be no assurance that any of our pending patent applications will be approved or that we will develop additional proprietary products that are patentable. There is also no assurance that any patents issued to us will provide us with competitive advantages, will not be challenged by any third parties, or that the patents of others will not prevent the commercialization of products incorporating our technology. Furthermore, there can be no guarantee that others will not independently develop similar products, duplicate any of our products, or design around our patents.

Our commercial success will also depend, in part, on our ability to avoid infringing on patents issued to others. If we were judicially determined to be infringing on any third-party patent, we could be required to pay damages, alter our products or processes, obtain licenses, or cease certain activities. If we are required in the future to obtain any licenses from third parties for some of our products, there can be no guarantee that we would be able to do so on commercially favorable terms, if at all. U.S. patent applications are not immediately made public, so we might be surprised by the grant to someone else of a patent on a technology we are actively using. As noted above as to the University of Pittsburgh lawsuit, even patents issued to us or our licensors might be judicially determined to belong in full or in part to third parties.

Litigation, which would result in substantial costs to us and diversion of effort on our part, may be necessary to enforce or confirm the ownership of any patents issued or licensed to us, or to determine the scope and validity of third-party proprietary rights. If our competitors claim technology also claimed by us and prepare and file patent applications in the United States of America, we may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office or a foreign patent office to determine priority of invention, which could result in substantial costs to and diversion of effort, even if the eventual outcome is favorable to us. Any such litigation or interference proceeding, regardless of outcome, could be expensive and time-consuming.

In addition to patents, which alone may not be able to protect the fundamentals of our regenerative cell business, we also rely on unpatented trade secrets and proprietary technological expertise. Some of our intended future cell-related therapeutic products, such as consumables, may fit into this category. We rely, in part, on confidentiality agreements with our partners, employees, advisors, vendors, and consultants to protect our trade secrets and proprietary technological expertise. There can be no guarantee that these agreements will not be breached, or that we will have adequate remedies for any breach, or that our unpatented trade secrets and proprietary technological expertise will not otherwise become known or be independently discovered by competitors.

Our amended regenerative cell technology license agreement with the Regents of the University of California ("UC") which includes issued U.S. patent number 7,470,537, contains certain developmental milestones, which if not achieved could result in the loss of exclusivity or loss of the license rights. The loss of such rights could impact our ability to develop certain regenerative cell technology products. Also, our power as licensee to successfully use these rights to exclude competitors from the market is untested.

Failure to obtain or maintain patent protection, or protect trade secrets, for any reason (or third-party claims against our patents, trade secrets, or proprietary rights, or our involvement in disputes over our patents, trade secrets, or proprietary rights, including involvement in litigation), could have a substantial negative effect on our results of operations and financial condition.

We may not be able to protect our intellectual property in countries outside the United States

Intellectual property law outside the United States is uncertain and in many countries is currently undergoing review and revisions. The laws of some countries do not protect our patent and other intellectual property rights to the same extent as United States laws. This is particularly relevant to us as we currently conduct most of our clinical trials outside of the United States. Third parties may attempt to oppose the issuance of patents to us in foreign countries by initiating opposition proceedings. Opposition proceedings against any of our patent filings in a foreign country could have an adverse effect on our corresponding patents that are issued or pending in the U.S. It may be necessary or useful for us to participate in proceedings to determine the validity of our patents or our competitors' patents that have been issued in countries other than the U.S. This could result in substantial costs, divert our efforts and attention from other aspects of our business, and could have a material adverse effect on our results of operations and financial condition. We currently have pending patent applications in Europe, Australia, Japan, Canada, China, Korea, and Singapore, among others.

We and Olympus-Cytori, Inc. are subject to intensive FDA regulation

As newly developed medical devices, the Celution® System family of products must receive regulatory clearances or approvals from the FDA and, in many instances, from non-U.S. and state governments prior to their sale. The Celution® System family of products is subject to stringent government regulation in the United States by the FDA under the Federal Food, Drug and Cosmetic Act. The FDA regulates the design/development process, clinical testing, manufacture, safety, labeling, sale, distribution, and promotion of medical devices and drugs. Included among these regulations are pre-market clearance and pre-market approval requirements, design control requirements, and the Quality System Regulations/Good Manufacturing Practices. Other statutory and regulatory requirements govern, among other things, establishment registration and inspection, medical device listing, prohibitions against misbranding and adulteration, labeling and post-market reporting.

The regulatory process can be lengthy, expensive, and uncertain. Before any new medical device may be introduced to the United States of America market, the manufacturer generally must obtain FDA clearance or approval through either the 510(k) pre-market notification process or the lengthier pre-market approval application, or PMA, process. It generally takes from three to 12 months from submission to obtain 510(k) pre-market clearance, although it may take longer. Approval of a PMA could take four or more years from the time the process is initiated. The 510(k) and PMA processes can be expensive, uncertain, and lengthy, and there is no guarantee of ultimate clearance or approval. We expect that some of our future products under development as well as Olympus-Cytori's will be subject to the lengthier PMA process. Securing FDA clearances and approvals may require the submission of extensive clinical data and supporting information to the FDA, and there can be no guarantee of ultimate clearance or approval. Failure to comply with applicable requirements can result in application integrity proceedings, fines, recalls or seizures of products, injunctions, civil penalties, total or partial suspensions of production, withdrawals of existing product approvals or clearances, refusals to approve or clear new applications or notifications, and criminal prosecution.

Medical devices are also subject to post-market reporting requirements for deaths or serious injuries when the device may have caused or contributed to the death or serious injury, and for certain device malfunctions that would be likely to cause or contribute to a death or serious injury if the malfunction were to recur. If safety or effectiveness problems occur after the product reaches the market, the FDA may take steps to prevent or limit further marketing of the product. Additionally, the FDA actively enforces regulations prohibiting marketing and promotion of devices for indications or uses that have not been cleared or approved by the FDA.

There can be no guarantee that we will be able to obtain the necessary 510(k) clearances or PMA approvals to market and manufacture our other products in the United States of America for their intended use on a timely basis, if at all. Delays in receipt of or failure to receive such clearances or approvals, the loss of previously received clearances or approvals, or failure to comply with existing or future regulatory requirements could have a substantial negative effect on our results of operations and financial condition.

To sell in international markets, we will be subject to intensive regulation in foreign countries

In cooperation with our distribution partners, we intend to market our current and future products both domestically and in many foreign markets. A number of risks are inherent in international transactions. In order for us to market our products in Europe, Canada, Japan and certain other non-U.S. jurisdictions, we need to obtain and maintain required regulatory approvals or clearances

and must comply with extensive regulations regarding safety, manufacturing processes and quality. For example, we still have not obtained regulatory approval for our Thin Film products in Japan. These regulations, including the requirements for approvals or clearances to market, may differ from the FDA regulatory scheme. International sales also may be limited or disrupted by political instability, price controls, trade restrictions and changes in tariffs. Additionally, fluctuations in currency exchange rates may adversely affect demand for our products by increasing the price of our products in the currency of the countries in which the products are sold.

There can be no assurance that we will obtain regulatory approvals or clearances in all of the countries where we intend to market our products, or that we will not incur significant costs in obtaining or maintaining foreign regulatory approvals or clearances, or that we will be able to successfully commercialize current or future products in various foreign markets. Delays in receipt of approvals or clearances to market our products in foreign countries, failure to receive such approvals or clearances or the future loss of previously received approvals or clearances could have a substantial negative effect on our results of operations and financial condition.

Changing, New and/or Emerging Government Regulations

Government regulations can change without notice. Given the fact that Cytori operates in various international markets, our access to such markets could change with little to no warning due to a change in government regulations that suddenly up-regulate our product(s) and create greater regulatory burden for our cell therapy and cell banking technology products.

Due to the fact that there are new and emerging cell therapy and cell banking regulations that have recently been drafted and/or implemented in various countries around the world, the application and subsequent implementation of these new and emerging regulations have little to no precedence. Therefore, the level of complexity and stringency is not known and may vary from country to country, creating greater uncertainty for the international regulatory process.

Health Insurance Reimbursement Risks

New and emerging cell therapy and cell banking technologies, such as those provided by the Celution® System family of products, may have difficulty or encounter significant delays in obtaining health care reimbursement in some or all countries around the world due to the novelty of our cell therapy and cell banking technology and subsequent lack of existing reimbursement schemes / pathways. Therefore, the creation of new reimbursement pathways may be complex and lengthy with no assurances that such reimbursements will be successful. The lack of health insurance reimbursement or reduced or minimal reimbursement pricing may have a significant impact on our ability to successfully sell our cell therapy and cell banking technology product(s) into a county or region.

Market Acceptance of New Technology

New and emerging cell therapy and cell banking technologies, such as those provided by the Celution® System family of products, may have difficulty or encounter significant delays in obtaining market acceptance in some or all countries around the world due to the novelty of our cell therapy and cell banking technologies. Therefore, the market adoption of our cell therapy and cell banking technologies may be slow and lengthy with no assurances that significant market adoption will be successful. The lack of market adoption or reduced or minimal market adoption of our cell therapy and cell banking technologies may have a significant impact on our ability to successfully sell our product(s) into a country or region.

We and/or the Joint Venture have to maintain quality assurance certification and manufacturing approvals

The manufacture of our Celution® System will be, and the manufacture of any future cell-related therapeutic products would be, subject to periodic inspection by regulatory authorities and distribution partners. The manufacture of devices and products for human use is subject to regulation and inspection from time to time by the FDA for compliance with the FDA's Quality System Regulation, or QSR, requirements, as well as equivalent requirements and inspections by state and non-U.S. regulatory authorities. There can be no guarantee that the FDA or other authorities will not, during the course of an inspection of existing or new facilities, identify what they consider to be deficiencies in our compliance with QSRs or other requirements and request, or seek remedial action.

Failure to comply with such regulations or a potential delay in attaining compliance may adversely affect our manufacturing activities and could result in, among other things, injunctions, civil penalties, FDA refusal to grant pre-market approvals or clearances of future or pending product submissions, fines, recalls or seizures of products, total or partial suspensions of production, and criminal prosecution. There can be no assurance after such occurrences that we will be able to obtain additional necessary regulatory approvals or clearances on a timely basis, if at all. Delays in receipt of or failure to receive such approvals or clearances, or the loss of previously received approvals or clearances could have a substantial negative effect on our results of operations and financial condition.

We depend on a few key officers

Our performance is substantially dependent on the performance of our executive officers and other key scientific and sales staff, including Christopher J. Calhoun, our Chief Executive Officer, and Marc Hedrick, MD, our President. We rely upon them for strategic business decisions and guidance. We believe that our future success in developing marketable products and achieving a competitive position will depend in large part upon whether we can attract and retain additional qualified management and scientific personnel. Competition for such personnel is intense, and there can be no assurance that we will be able to continue to attract and retain such personnel. The loss of the services of one or more of our executive officers or key scientific staff or the inability to attract and retain additional personnel and develop expertise as needed could have a substantial negative effect on our results of operations and financial condition.

We may not have enough product liability insurance

The testing, manufacturing, marketing, and sale of our regenerative cell products involve an inherent risk that product liability claims will be asserted against us, our distribution partners, or licensees. There can be no guarantee that our clinical trial and commercial product liability insurance is adequate or will continue to be available in sufficient amounts or at an acceptable cost, if at all. A product liability claim, product recall, or other claim, as well as any claims for uninsured liabilities or in excess of insured liabilities, could have a substantial negative effect on our results of operations and financial condition. Also, well-publicized claims could cause our stock to fall sharply, even before the merits of the claims are decided by a court.

Our charter documents contain anti-takeover provisions and we have adopted a Stockholder Rights Plan to prevent hostile takeovers

Our Amended and Restated Certificate of Incorporation and Bylaws contain certain provisions that could prevent or delay the acquisition of the Company by means of a tender offer, proxy contest, or otherwise. They could discourage a third party from attempting to acquire control of Cytori, even if such events would be beneficial to the interests of our stockholders. Such provisions may have the effect of delaying, deferring, or preventing a change of control of Cytori and consequently could adversely affect the market price of our shares. Also, in 2003 we adopted a Stockholder Rights Plan of the kind often referred to as a poison pill. The purpose of the Stockholder Rights Plan is to prevent coercive takeover tactics that may otherwise be utilized in takeover attempts. The existence of such a rights plan may also prevent or delay a change in control of Cytori, and this prevention or delay adversely affect the market price of our shares.

We pay no dividends

We have never paid in the past, and currently do not intend to pay any cash dividends in the foreseeable future.

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

On February 8, 2008, we agreed to sell 2,000,000 shares of unregistered common stock to Green Hospital Supply, Inc. for $12,000,000 cash, or $6.00 per share in a private stock placement. On February 29, 2008 we closed the first half of the private placement with Green Hospital Supply, Inc. and received $6,000,000 in exchange for 1,000,000 unregistered shares of Cytori common stock. On April 30, 2008 we received the second $6,000,000 payment from Green Hospital Supply, Inc. in exchange for 1,000,000 unregistered shares of Cytori common stock.

On August 11, 2008, we raised approximately $17,000,000 in gross proceeds from a private placement of 2,825,517 unregistered shares of common stock and 1,412,758 common stock warrants (with an original exercise price of $8.50 per share) to a syndicate of investors including Olympus Corporation, who acquired 1,000,000 unregistered shares and 500,000 common stock warrants in exchange for $6,000,000 of the total proceeds raised. Additional information regarding this private placement was previously provided in a current report on Form 8-K filed on August 8, 2008.

On May 14, 2009, we raised approximately $4,242,000 in net proceeds from a private placement of 1,864,783 unregistered shares of common stock and 3,263,380 common stock warrants (with an exercise price of $2.62 per share) to a syndicate of investors. Additional information regarding this private placement was previously provided in a current report on Form 8-K filed on May 8, 2009.

Item 3. Defaults Upon Senior Securities

None

Item 4. Submission of Matters to a Vote of Security Holders

None

Item 5. Other Information

Properties

We currently lease 91,000 square feet located at 3020 and 3030 Callan Road, San Diego, California. The related rent agreement bears rent at a rate of $1.15 per square foot, with annual increases of 3%. The lease term is 57 months, commencing on October 1, 2005 and expiring on June 30, 2010. We also lease 4,027 square feet of office space located at 9-3 Otsuka 2-chome, Bunkyo-ku, Tokyo, Japan. The agreement provides for rent at a rate of $4.38 per square foot, expiring on November 30, 2009. We also entered into a new lease during the second quarter of 2008 for 900 square feet of office space located at Via Gino Capponi n. 26, Florence, Italy. The lease agreement provides for rent at a rate of $2.63 per square foot, expiring on April 22, 2014. Additionally, we've entered into several lease agreements for corporate housing for our employees on international assignments. For these properties, we pay an aggregate of approximately $146,000 in rent per month.

Staff

As of June 30, 2009, we had 84 employees, including part-time and full-time employees. These employees are comprised of 14 employees in manufacturing, 29 employees in research and development, 18 employees in sales and marketing and 23 employees in management and finance and administration. From time to time, we also employ independent contractors to support our operations. Our employees are not represented by any collective bargaining unit and we have never experienced an organized work stoppage.

Item 6. Exhibits

Exhibit No.	Description
4.3	Form of Warrant to Purchase Common Stock to be issued pursuant to the Securities Purchase Agreement, dated May 7, 2009, by and among the Company and the Purchasers identified on the signature pages thereto (filed as Exhibit 10.64 to our current report on Form 8-K filed on May 8, 2009 and incorporated by reference herein).
10.65	Securities Purchase Agreement, dated May 7, 2009, by and among the Company and the Purchasers identified on the signature pages thereto (filed as Exhibit 10.63 to our current report on Form 8-K filed on May 8, 2009 and incorporated by reference herein).
10.66	Registration Rights Agreement, dated May 7, 2009, by and among the Company and the Purchasers identified on the signature pages thereto (filed as Exhibit 10.65 to our current report on Form 8-K filed on May 8, 2009 and incorporated by reference herein).
10.67	Common Stock Purchase Agreement, dated June 19, 2009, by and among the Company and Seaside 88, LP (filed as Exhibit 10.68 to our current report on Form 8-K filed on June 22, 2009 and incorporated by reference herein).
31.1	Certification of Principal Executive Officer Pursuant to Securities Exchange Act Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	Certification of Principal Financial Officer Pursuant to Securities Exchange Act Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.1*	Certifications Pursuant to 18 U.S.C. Section 1350/ Securities Exchange Act Rule 13a-14(b), as adopted pursuant to Section 906 of the Sarbanes - Oxley Act of 2002 (filed herewith).

* These certifications are being furnished solely to accompany this report pursuant to 18 U.S.C. 1350 and are not being filed for purposes of Section 18 of the Securities and Exchange Act of 1934 and are not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SIGNATURES

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.

CYTORI THERAPEUTICS, INC.

By: /s/ Christopher J. Calhoun

Dated: August 10, 2009

Christopher J. Calhoun
Chief Executive Officer

By: /s/ Mark E. Saad

Dated: August 10, 2009

Mark E. Saad
Chief Financial Officer

EXHIBIT 31.1

Certification of Principal Executive Officer Pursuant to
Securities Exchange Act Rule 13a-14(a),
as Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Christopher J. Calhoun, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cytori Therapeutics, 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 report;

4. The registrant's other certifying officer 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 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: August 10, 2009
/s/ Christopher J. Calhoun
Christopher J. Calhoun,
Chief Executive Officer

EXHIBIT 31.2

Certification of Principal Financial Officer Pursuant to
Securities Exchange Act Rule 13a-14(a),
as Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Mark E. Saad, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cytori Therapeutics, 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 report;

4. The registrant's other certifying officer 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 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: August 10, 2009
/s/ Mark E. Saad
Mark E. Saad
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350/ SECURITIES EXCHANGE ACT RULE 13a-14(b), AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Cytori Therapeutics, Inc. for the quarterly period ended June 30, 2009 as filed with the Securities and Exchange Commission on the date hereof, Christopher J. Calhoun, as Chief Executive Officer of Cytori Therapeutics, Inc., and Mark E. Saad, as Chief Financial Officer of Cytori Therapeutics, Inc., each hereby certifies, respectively, that:

1. The Form 10-Q report of Cytori Therapeutics, Inc. that this certification accompanies fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934.

2. The information contained in the Form 10-Q report of Cytori Therapeutics, Inc. that this certification accompanies fairly presents, in all material respects, the financial condition and results of operations of Cytori Therapeutics, Inc.

By: /s/ Christopher J. Calhoun

Dated: August 10, 2009

Christopher J. Calhoun
Chief Executive Officer

By: /s/ Mark E. Saad

Dated: August 10, 2009

Mark E. Saad
Chief Financial Officer