CYTORI THERAPEUTICS, INC.

FORM 10-K
(Annual Report)

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Address	3020 CALLAN ROAD
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Industry	Medical Equipment & Supplies
Sector	Healthcare
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2008

OR

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

For the transition period from to

Commission file number 0-32501

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**

Securities registered pursuant to Section 12(b) of the Act:
Common stock, par value $0.001

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

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

The aggregate market value of the common stock of the registrant held by non-affiliates of the registrant on June 30, 2008, the last business day of the registrant's most recently completed second fiscal quarter, was $107,941,235 based on the closing sales price of the registrant's common

stock on June 30, 2008 as reported on the Nasdaq Global Market, of $6.48 per share.

As of February 28, 2009, there were 29,313,441 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2009 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission within 120 days after the end of the year ended December 31, 2008, are incorporated by reference in Part III, Items 10, 11, 12, 13 and 14 of this Form 10-K.

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PART I

Item 1. Business

General

Cytori Therapeutics, Inc., develops, manufactures, and sells medical products to enable the practice of regenerative medicine. Regenerative medicine describes the emerging field that aims to repair or restore lost or damaged tissue and cell function. Our commercial activities are currently focused on cosmetic and reconstructive surgery in Europe and Asia-Pacific, fulfilling the demand among physicians in Europe and Asia Pacific for clinical grade stem and regenerative cells, and stem and regenerative cell banking (cell preservation) worldwide. In addition, we are seeking to bring our products to market in the United States as well as other countries. Our product pipeline includes the development of potential new treatments for cardiovascular disease, spinal disc degeneration, gastrointestinal disorders, liver and renal disease and pelvic health conditions.

The foundation of our business is the patented Celution ® System family of products which processes patients' cells at the bedside in real time. Each member of the Celution ® System family of products consists of a central device, a related single-use consumable used for each patient procedure, proprietary enzymes, and related instrumentation. Our commercialization model is based on the sale of Celution ® Systems and on generating recurring revenues from the single-use consumable sets.

Our Celution ® 800/CRS System was introduced during 2008 into the European cosmetic and reconstructive surgery market through a network of medical distributors. The Celution ® 900/MB is being marketed in Japan through our commercialization partner, Green Hospital Supply, Inc. (Green Hospital Supply) as part of the comprehensive StemSource ® Cell Bank, which prepares cells for cryopreservation in the event they may be used in the future.

The most advanced therapeutic application in our product development pipeline is cardiovascular disease. Currently, two cardiovascular clinical trials are being conducted in Europe with adipose-derived stem and regenerative cells, processed with the Celution ® 600 System, an earlier version of the Celution ® 800/CV. The Celution ® 800/CV has recently been introduced to these clinical sites. One of the clinical trials is in patients suffering from chronic myocardial ischemia, a severe form of chronic heart disease, and the other is in heart attack patients.

In the United States, our goal is to seek regulatory and marketing approval on the Celution ® 700 System family of products. We expect to finalize our U.S. regulatory and clinical development strategy in 2009.

Summary of Celution ® System Family Regulatory Status

Celution ® Series	Region	Clinical Applications	Regulatory Status	Comments
900/MB	Japan	Cell Banking	Approved	
900/MB	Greece	Cell Banking	CE Mark	
800/CRS	Europe	Cell Processing for re-implantation or re-infusion into same patient (General Processing)	CE Mark	Post-marketing studies underway for reconstructive surgery
	Europe	Seeking cosmetic & reconstructive claims	In process	
800/CV	Europe	Will seek cardiovascular disease claims	In clinical study	
800/GP	Europe	Will seek multiple specific surgical claims	Pre-clinical	

Summary of Celution® System Family Regulatory Status (cont'd)

Celution ® Series	Region	Clinical Applications	Regulatory Status	Comments
700/CRS	USA	Will seek reconstructive surgery claims	Pre-clinical	
700/CV	USA	Will seek cardiovascular disease claims	Pre-clinical	
700/GP	USA	Will seek multiple general surgical claims	Pre-clinical	
600	Europe	Cell Concentration	CE Mark	Two cardiac clinical trials underway: chronic and acute
200	USA	Blood Processing	510 (k) clearance	

Our MacroPore Biosurgery operating segment manages the ThinFilm biomaterial product line in Japan. We sold our non-Japan Thin Film business in 2004. Pending regulatory approval in Japan, this product line would be distributed exclusively through Senko Medical Trading Co. ("Senko") for anti-adhesion applications, soft tissue support, and minimization of the attachment of soft tissues throughout the body.

Reconstructive Surgery

The Celution ® 800/CRS System is approved in Europe as a bedside device for separating and concentrating a patient's stem and regenerative cells, which reside naturally within their adipose (fat) tissue, so that these cells may be re-injected back into that same patient.

The Celution ® 800/CRS System was introduced into the European and Asia-Pacific reconstructive surgery market in the first quarter of 2008. Our distribution network covers the UK, France, Germany, Norway, Finland, Denmark, Sweden, Austria and Switzerland through our commercialization partnership with GE Healthcare, and Belgium, China, Greece, Indonesia, Israel, Italy, Korea, Malaysia, Portugal, Singapore, Spain, Turkey and the Netherlands through a network of independent distributors.

We hope to begin commercializing the Celution ® 800/CRS System with indications for use for breast reconstruction for partial mastectomy defects as early as 2010 pending supporting clinical data and expanded CE certification. To support this goal, a 70-patient, multi-center study, RESTORE II, was initiated in Europe in 2008. The results from this study will also be used to support reimbursement for such procedure.

Market for Clinical-Grade Cells

The Celution System is being sold to physicians to fulfill their demand for access to clinical-grade stem and regenerative cells. Celution is the only such system broadly available in Europe today that can provide real time access to cells, which can safely be administered to patients. Availability at the point of care enables physicians to apply cells across an array of applications. Certain physicians may even choose to study patient outcomes to understand the benefit of these cells under their own independently sponsored and regulated studies. Such 'translational' efforts are growing and already represent applications as diverse as wound healing, radiation injury, breast reconstruction, breast augmentation, HIV related facial wasting syndrome, vocal cord paralysis, burn, urinary incontinence, fistula repair (and Crohn's disease), bone regeneration, cardiovascular applications, peripheral vascular disease, renal insufficiency and acute kidney injury, and liver disease among many others. We expect the breadth of these applications will grow significantly as physicians continue to adopt cell based regenerative medicine into their treatment strategies based on the availability of safe clinical grade cells at the point of care.

StemSource ® and Cell B ank ing

The Celution ® 900/MB System is the foundation of our StemSource ® Cell Bank for cryopreserving patients' adult stem and regenerative cells. The StemSource® Cell Bank is being marketed to hospitals, tissue banks and stem cell banking companies in Europe and Asia. With a StemSource ® Cell Bank on site, hospitals will be able to offer their patients the option

of storing their adipose tissue-derived stem and regenerative cells and accessing them as clinical applications are approved.

The StemSource® Cell Bank is being marketed in Japan, Korea, Taiwan and Thailand exclusively by Green Hospital Supply, Inc. The value of a StemSource ® Cell Bank lies in the recurring revenue from processing and freezing. It starts with a tissue collection procedure, which may be performed during an already planned surgery or a separate elective procedure. The cells are prepared for storage using the Celution ® 900/MB System, which automates the separation and concentration of stem and regenerative cells from adipose tissue and thereby allows hospitals to more affordably offer such service to patients.

As part of our agreement with Green Hospital Supply, we equally split revenues in Japan, Korea, Taiwan and Thailand from the sale to hospitals of StemSource ® Cell Banks and single-use, per-procedure consumables. Green Hospital Supply is responsible for all sales and marketing while Cytori is responsible for manufacturing the Celution ® 900/MB System and sourcing all necessary equipment, including but not limited to cryopreservation chambers, cooling and thawing devices, cell banking protocols and the proprietary software and database application.

Cytori signed a commercialization partnership with GE Healthcare in January 2009, which grants GE Healthcare exclusive rights to commercialize the Celution ® System in the U.K., France, Germany, Norway, Finland, Denmark, Sweden, Austria, Switzerland, Belgium, the Netherlands and Luxembourg for clinical grade access to stem and regenerative cells and stem cell banking.

Cardiovascular Disease

We currently have two clinical trials underway in Europe for adipose-derived stem and regenerative cells processed with the Celution ® 600 and 800 Systems, to study cardiovascular disease. In January 2007, we initiated a clinical trial for chronic myocardial ischemia, a severe form of coronary artery disease. In late 2007, we initiated a study for acute heart attacks, for which enrollment is ongoing. Enrollment for both trials is projected to be completed in 2009. Both are double-blind, placebo controlled safety and feasibility studies, which will evaluate a variety of primary and secondary safety and efficacy endpoints.

We believe there is significant need for new forms of treatment for cardiovascular disease, which represents one of the largest healthcare market opportunities. The American Heart Association estimates that in the United States of America alone there are approximately 865,000 heart attacks each year and more than 13,000,000 people suffer from coronary heart disease.

Celution ® System Pipeline

Other applications for the Celution ® System family of products under investigation include gastrointestinal disorders, vascular disease, pelvic health conditions, and orthopedic and spinal applications. Our scientists are, to a varying degree, investigating these applications in pre-clinical models.

Manufacturing

The Celution ® 800/CRS, Celution ® 900/MB, and related single-use consumables are being manufactured at Cytori's headquarters in San Diego, CA. The completion of our internal manufacturing facilities in 2007 is expected to enable us to meet anticipated demand in 2009.

In the future, the next generation Celution ® device is expected to be manufactured through a joint venture arrangement between Cytori and Olympus Corporation ("Olympus"), a global optics and life science company. Olympus-Cytori Inc. (the "Joint Venture"), enables Cytori to access Olympus' expertise in engineering, manufacturing and servicing of sophisticated medical devices. The Joint Venture will supply the Celution ® System for all therapeutic applications solely to Cytori at a formula-based transfer price. Cytori owns Celution ® System marketing rights for all therapeutic applications.

Competition

We compete with multiple pharmaceutical, biotechnology and medical device companies involved in the development and commercialization of medical technologies and therapies.

Regenerative medicine is rapidly progressing, in large part through the development of cell-based therapies or devices designed to isolate cells from human tissues. Most efforts involve cell sources, such as bone marrow, embryonic and fetal tissue, umbilical cord and peripheral blood, and skeletal muscle. We work exclusively with adult stem and regenerative cells from adipose tissue.

Companies working in this area include, among others, Aastrom Biosciences, Inc., Baxter International, Inc., BioHeart, Inc., Cellerix SA, Genzyme, Inc., Geron Corporation, Isolagen, Inc., MG Biotherapeutics (a joint venture between Genzyme and Medtronic), Osiris Therapeutics, Inc., Stem Cells, Inc. and Tissue Genesis, Inc. Many of our competitors and potential competitors have substantially greater financial, technological, research and development, marketing, and personnel resources than we do. We cannot with any accuracy forecast when or if these companies are likely to bring cell therapies to market for indications that we are also pursuing.

Some of our competitors are also working with adipose-derived cells. To the best of our knowledge, none of these companies are currently conducting human clinical trials. In addition, Cytori is aware of several surgeons who are performing autologous fat transfers using manual methods, some of whom enrich the fat with autologous adipose-derived cells.

Companies researching and developing cell-based therapies for cardiovascular disease include, among others, Baxter, BioHeart, MG Biotherapeutics, and Osiris. Baxter completed a Phase II study in the United States using stem cells extracted from peripheral blood for chronic myocardial ischemia. BioHeart is conducting multiple ongoing clinical trials in the United States and Europe for its investigational product MyoCell™, which are cultured autologous skeletal myoblasts. We are aware that BioHeart has disclosed its intentions to develop heart attack treatments using adipose-derived cells. Osiris Therapeutics, Inc. completed a Phase I clinical trial using allogeneic (donor), mesenchymal stem cells, for acute myocardial infarction and is planning a broader Phase II study.

Research and Development

Research and development expenses were $17,371,000, $20,020,000 and $21,977,000 for the years ended December 31, 2008, 2007 and 2006, respectively. For 2008, majority of the research and development expenses were related to our regenerative cell technology.

Our research and development efforts in 2008 focused predominantly on the following areas:

- Optimization of the design, functionality and manufacturing process for the Celution ® System family of products, single-use consumables and related instrumentation for the entry of the device into the European reconstructive surgery market and the StemSource ® Cell Banking market in Europe and Asia-Pacific;

- Development of the infrastructure and logistics in partnership with Green Hospital Supply including building out a proprietary database and software application and optimizing proprietary protocols, resulting in the first sale in Japan of the StemSource ® cell banking line to the University of Kyoto;

- Preparation and initiation of a 70 patient European breast reconstruction post-marketing clinical study using the Celution ® System. The study is taking place across several centers and will measure safety, volume retention as well as other metrics related to autologous fat transfers enriched with the Celution ® System output to correct partial mastectomy defects;

- Implementation and continuing enrollment in two randomized, double blind, placebo controlled, cardiovascular disease clinical trials in Europe for chronic myocardial ischemia and heart attacks.

- Preparation and submission of multiple regulatory filings in the United States, Europe, and Japan related to various cell processing systems under development;

- Conducting extensive pre-clinical safety and efficacy studies investigating the use of adipose-derived stem and regenerative cells for reconstructive surgery, spinal disc repair, renal failure, pancreatitis, stroke, and other therapeutic applications;

- Investigating the cellular and molecular properties, composition, and characteristics of stem and regenerative cells residing in adipose tissue towards improving our intellectual property position and towards understanding how to improve and control the therapeutic products.

Customers

Cytori has established a network of distributors who offer our Celution ® System, instrumentation and consumables to surgeons and hospitals throughout Europe. These distributors purchase the devices from Cytori at a contractually agreed-upon transfer price. We also market our Celution ® System directly to customers in select countries within Europe. In addition, we offer the Celution as part of the StemSource ® Cell Bank, a comprehensive suite of products to allow hospitals or tissue banks to cryopreserve adipose-derived stem and regenerative cells.

In July 2004, we entered into a Distribution Agreement with Senko under which we granted to Senko an exclusive license to sell and distribute Thin Film products in Japan. The sale of products through Senko commences upon "commercialization," which requires regulatory clearance from the Japanese regulatory authorities. We are currently pursuing the required regulatory clearance. Following commercialization, the Distribution Agreement has a five-year duration and is renewable for an additional five years after reaching mutually agreed minimum purchase guarantees. In 2004, we sold all of our non-Japan Thin Film business.

Sales by Geographic Region

For the year ended December 31, 2008, all of our product revenue came from sales of Celution ® 800/CRS System to the European and Asia-Pacific reconstructive surgery market and installation of our first StemSource ® Cell Bank in Greece. For the year ended December 31, 2007, our only product sales came from our bioresorbable surgical implants. As these were no longer core to our business focus, we sold our remaining interest in this line of business to Kensey Nash in May 2007 (excluding our Thin Film products in Japan) and we no longer receive any revenue from the sales of those products. Prior to May 2007, we sold our products predominantly in the United States and to a lesser extent internationally through Medtronic.

Regenerative Cell Technology

Beginning in March 2008, we began sales and shipments of our Celution ® 800/CRS System to the European and Asia-Pacific reconstructive surgery market. In September 2008 we completed installation of our first StemSource ® Cell Bank in Greece. This product includes a combination of equipment and service deliverables, some of which will be provided to the customer over time. We have recorded $4,528,000 in revenue during 2008 related to our Celution ® products and StemSource ® Cell Bank.

Additionally, our consolidated balance sheet includes a line item entitled deferred revenues, related party. This account primarily consists of the consideration we have received in exchange for future obligations that we have agreed to perform on behalf of Olympus and the Joint Venture. We recognize deferred revenues, related party, as development revenue when certain performance obligations are met. Such revenue recognition results from completion of certain milestones, such as completion of product development efforts, regulatory filings and related pre-clinical and clinical studies. In 2008, 2007 and 2006, we recognized $774,000, $5,158,000 and $5,905,000 of revenue associated with our arrangements with Olympus, respectively.

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 stem and 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. As part of this agreement, Olympus could 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. 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.

For the year ended December 31, 2006, we recorded $310,000 in grant revenue related to our agreement with the National Institutes of Health ("NIH"). Under this agreement, the NIH reimbursed us for "qualifying expenditures" related to research on Adipose-Derived Cell Therapy for Myocardial Infarction. There was no similar revenue in 2007 and 2008.

For the years ended December 31, 2008, 2007 and 2006, we recorded revenue of $47,000, $85,000 and $102,000, respectively, related to cell processing equipment, and adipose derived stem cell research products sold to various research facilities. We also recorded stem cell banking revenue of $4,000, $4,000 and $7,000 for the years ended December 31, 2008, 2007 and 2006, respectively, related to our U.S. StemSource ® Cell Bank offering for the processing and preservation of adipose-derived stem and regenerative cells at our FDA and California state-licensed tissue bank facility.

MacroPore Biosurgery

In 2007 and 2006 our product sales were $792,000 and $1,451,000, respectively, all of which relate to the MacroPore Biosurgery segment. These revenues were primarily related to orders for our radiographically identifiable Spine System products, marketed under the name MYSTIQUE™. As noted above, we were concerned about the level of commitment to these products from Medtronic, our exclusive distributor, and we sold our intellectual property rights and tangible assets related to our spine and orthopedic bioresorbable implant product line to Kensey Nash in May 2007.

Under a distribution agreement with Senko, we are responsible for the completion of the initial regulatory application to the MHLW (the Japanese equivalent of the U.S. Food and Drug Administration). We recognized development revenue based on milestones defined within this agreement of $10,000 and $152,000 for the years ended December 31, 2007 and 2006, respectively. We did not recognize any similar revenue in 2008. We have not received any Thin Film product revenue in Japan yet, and we sold all our non-Japan Thin Film business in 2004.

We anticipate that our future international product revenues will increase as a result of our Distribution Agreement with Senko to the extent our Thin Film products reach commercialization in Japan.

Planned Capital Expenditures

Although capital expenditures may vary significantly depending on a variety of factors, we may spend up to $1,000,000 on capital equipment purchases in 2009, although we will diligently seek to spend much less. These may be paid with our available cash, or financed if appropriate. (See additional discussion regarding Liquidity at the beginning of Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.)

Raw Materials

Raw materials required to manufacture the Celution ® System family of products and disposables are commonly available from multiple sources, and we have identified and executed supply agreements with our preferred vendors. Some specialty components are custom made for Cytori, and we are dependent on the ability of these suppliers to deliver functioning parts in a timely manner to meet the ongoing demand for our products. There can be no assurance that we will be able to obtain adequate quantities of the necessary raw materials supplies within a reasonable time or at commercially reasonable prices. Interruptions in supplies due to price, timing, or availability could have a negative impact on our ability to manufacture products.

Intellectual Property

Our success depends in large part on our ability to protect our proprietary technology, including the Celution ® System product platform, and to operate without infringing on the proprietary rights of third parties. We rely on a combination of patent, trade secret, copyright and trademark laws, as well as confidentiality agreements, licensing agreements and other agreements, to establish and protect our proprietary rights. Our success also depends, in part, on our ability to avoid infringing 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.

To protect our proprietary medical technologies, including the Celution® System platform and scientific discoveries, Cytori has has three issued U.S. patents and six issued International patents. In addition, we have 117 patent applications pending worldwide. We are seeking patents on methods and systems for processing adipose-derived stem and regenerative cells, on use of adipose-derived stem and regenerative cells for a variety of therapeutic indications, including their mechanisms of actions, and on compositions of matter than include adipose-derived stem and regenerative cells.

In June 2008, Cytori was issued U.S. Patent No. 7,390,484 (the '484 patent). The '484 patent is a foundational patent that protects the Celution ® System technology for processing adipose tissue to obtain a diverse and mixed population of adipose derived stem and regenerative cells. The '484 patent establishes a strong barrier-to-entry against potential competitors and provides critical market protection while we seek regulatory approval in the United States.

In September 2008, Cytori was issued U.S. Patent No. 7,429,488 ('the '488 patent). The '488 patent protects Cytori's Celution® System based methods of generating adipose tissue derived stem and regenerative cell enhanced fat grafts. Cell enhanced fat grafts may be used in a variety of cosmetic and reconstructive surgery applications, including breast reconstruction following partial mastectomy, breast implant salvage, as well as facial and other cosmetic applications.

In January 2009, Cytori was issued U.S. Patent No. 7,473,420 (‘the 420 patent). The ‘420 patent protects combinations of the Celution System output with various additives including, but not limited to, agents that promote cell differentiation such as growth factors, cytokines and protein, demineralized bone, tissue or tissue fragments, biological or artificial scaffolds, and immunosuppressive compounds. These additives may be combined with the Celution System output to increase efficacy, optimize or localize cell delivery, enhance specific cell properties or promote cell differentiation.

Cytori has also received six international patents. Specifically, Cytori has received patents in Korea and Singapore related to the Company’s current Celution System devices, patents in Korea and Australia related to the Company’s StemSource Cell Bank, and patents in Singapore and South Africa related to the use of adipose derived stem and regenerative cells for cardiovascular therapy.

We are also the exclusive, worldwide licensee of the Regents of the University of California’s rights to U.S. Patent No. 6,777,231 (the ‘231 patent), U.S. Patent No. 7,470,537 (the ‘537 patent), six issued international patents and 17 patent applications pending worldwide. The ‘231 patent covers isolated adipose derived stem cells that can differentiate into two or more of a variety of cell types. The ‘231 patent has been construed to cover isolated adipose derived stem cells in an environment substantially free of other cellular materials found in adipose tissue. The ‘537 patent, issued in December 2009, covers a population of stem cells and progenitor cells which can be obtained from adipose tissue and which express certain combinations of cell surface markers. Specifically, the ‘537 patent covers adipose derived stem and progenitor cells that express certain combinations of Stro-1+, CD29+, CD44+, CD71+, CD49d+, CD90+, CD105+, SH3, CD45-, CD31- and low or undetectable levels of CD106. International patents related to isolated cells from adipose tissue have issued in Australia, Korea, Russia, Singapore and South Africa.

We cannot assure that any of the pending patent applications will be issued, that we will develop additional proprietary products that are patentable, that any patents issued to us will provide us with competitive advantages or 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, we cannot assure that others will not independently develop similar products, duplicate any of our products or design around our patents. 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.

Patent law outside the United States is uncertain and in many countries is currently undergoing review and revisions. The laws of some countries may not protect our proprietary rights to the same extent as the laws of the U.S. 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.

Patent litigation results in substantial costs to us and diversion of effort, and may be necessary from time to time 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, 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.

In the fourth quarter of 2004, the University of Pittsburgh filed a lawsuit naming all of the inventors who had not assigned their ownership interest in U.S. Patent 6,777,231 to the University of Pittsburgh, seeking a determination that its assignors, rather than the University of California’s assignors, are the true inventors of Patent No. 6,777,231. If the University of Pittsburgh wins the lawsuit, our license rights to this patent could be nullified or rendered non-exclusive with respect to any third party that might license rights from the University of Pittsburgh. On August 9, 2007, the United States District Court granted the University of Pittsburgh’s motion for Summary Judgment in part, determining that the University of Pittsburgh’s assignees were properly named as inventors on Patent 6,777,231, and that all other inventorship issues shall be determined according to the facts presented at trial. The trial was concluded in January 2008 and on June 9, 2008 the Court signed its final order which we received on June 12, 2008. The Court concluded that the University of Pittsburgh’s assignors were the sole inventors of the ‘231 Patent. The Court’s decision terminated UC’s rights to the ‘231 Patent. Upon review of the Court’s findings, we believe that the Court’s decision was in error and that work completed at the University of California was critical to obtaining this patent. The UC assignors are appealing the decision. If the UC assignors’ appeal of the Court’s decision is successful, UC’s rights to the ‘231 Patent should be reinstated.

We are not named as a party to the lawsuit, but our president, Marc Hedrick, is one of the inventors identified on the ‘231 Patent and therefore is a named individual defendant. Due to our license obligations to UC relating to the ‘231 Patent and other UC patent applications, we have provided substantial financial and other assistance to the defense of the lawsuit. Since our current products and products under development do not practice the ‘231 Patent, our primary ongoing business activities and product development pipeline should not be affected by the Court’s decision. Although the ‘231 Patent is unrelated to our current products and product pipeline, we believe that the ‘231 Patent and/or the other technology licensed from UC may have long term potential to be useful for future product developments, and so we have elected to support UC’s legal efforts in the appeal of the Court’s final order. We have incurred substantial legal costs as a result of the University of Pittsburgh lawsuit to date, but we expect future costs will be minimal since the only remaining expense will be related to the final argument of the appeal. As a named inventor on the patent, Marc Hedrick is entitled to receive from the UC up to 7% of royalty payments made by a licensee (us) to UC. This agreement was in place prior to his employment with us.

In addition to patent protection, we rely on unpatented trade secrets and proprietary technological expertise. We cannot assure you that others will not independently develop or otherwise acquire substantially equivalent techniques, somehow gain access to our trade secrets and proprietary technological expertise or disclose such trade secrets, or that we can ultimately protect our rights to such unpatented trade secrets and proprietary technological expertise. We rely, in part, on confidentiality agreements with our marketing partners, employees, advisors, vendors and consultants to protect our trade secrets and proprietary technological expertise. We cannot assure you that these agreements will not be breached, 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.

Failure to obtain or maintain patent protection, or protect trade secrets, for any reason, 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 the results of our operations, cash flows and financial condition.

Government Regulation

As newly developed medical devices, our Celution® System family of products must receive regulatory clearances or approvals from the European Union, the FDA and, from other state governments prior to their sale. Our current and future Celution® Systems are or will be 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 Celution® System family of products must also comply with the government regulations of each individual country in which the products are to be distributed and sold. These regulations vary in complexity and can be as stringent, and on occasion even more stringent, than US FDA regulations. International government regulations vary from country to country and region to region. For example, regulations in some parts of the world only require product registration while other regions / countries require a complex product approval process. 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. Furthermore, government regulations can change with little to no notice and may result in up-regulation of our product(s), thereby, creating a greater regulatory burden for our cell processing and cell banking technology products.

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 (“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. In addition, modifications or enhancements of products that could affect the safety or effectiveness or effect a major change in the intended use of a device that was either cleared through the 510(k) process or approved through the PMA process may require further FDA review through new 510(k) or PMA submissions.

Under the terms of our Joint Venture Agreements with Olympus we are the party with the primary responsibility for obtaining regulatory approvals to sell the Olympus-Cytori, Inc. devices. To date we have prepared and submitted multiple regulatory filings in the United States and Europe related to various cell processing systems under development, which notably resulted in receipt of a CE Mark on the Celution ® 800 System and 510(K) clearance in the United States for various related medical technologies, including an autologous blood processing device.

We must comply with extensive regulations from foreign jurisdictions regarding safety, manufacturing processes and quality. These regulations, including the requirements for marketing authorization, may differ from the United States FDA regulatory scheme. Specifically, in regard to our Thin Film product line in Japan (distributed by Senko), we have been seeking marketing authorization from the Japanese Ministry of Health, Labour and Welfare for the past four years, but have not obtained approvals yet.

Staff

As of December 31, 2008, we had 126 employees, including part-time and full-time employees. These employees are comprised of 20 employees in manufacturing, 57 employees in research and development, 17 employees in sales and marketing and 32 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 agreements and we have never experienced an organized work stoppage. A breakout by segment is as follows:

	Regenerative Cell Technology	Corporate	Total
Manufacturing	20	—	20
Research & Development	57	—	57
Sales and Marketing	17	—	17
General & Administrative	—	32	32
Total	94	32	126

Web Site Access to SEC Filings

We maintain an Internet website at www.cytoritx.com. Through this site, we make available free of charge our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with, or furnish it to, the U.S. Securities and Exchange Commission (SEC). In addition, we publish on our website all reports filed under Section 16(a) of the Securities Exchange Act by our directors, officers and 10% stockholders. These materials are accessible via the Investor Relations section of our website within the “SEC Filings” link. Some of the information is stored directly on our website, while other information can be accessed by selecting the provided link to the section on the SEC website, which contains filings for our company and its insiders.

We file electronically with the SEC our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) of the Securities Exchange Act of 1934. The SEC maintains an Internet site that contains reports, proxy information and information statements, and other information regarding issuers that file electronically with the SEC. The address of that website is http://www.sec.gov . The materials are also available at the SEC’s

Public Reference Room, located at 100 F Street, Washington, D.C. 20549. The public may obtain information through the public reference room by calling the SEC at 1-800-SEC-0330.

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 annual report on Form 10-K. 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 annual report on Form 10-K.

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

We need to raise more cash in the very near term

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 very near term to continue our operations at or close to the levels currently conducted. We believe that without raising additional capital soon from accessible sources of financing, as well as an increase in capital from our operations, we will not otherwise 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 very soon 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 finding or cash liquidity relief then we will likely very soon thereafter 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 will at the least require us to significantly delay, scale back, or eliminate some or all of our research or product development, manufacturing operations, clinical or regulatory activities having 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 products 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 Celution ® 900-based StemSource ® 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.

Our amended regenerative cell technology license agreement with the Regents of the University of California, or the UC, 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. In addition, further legal risk arises from a lawsuit filed by the University of Pittsburgh in the United States District Court, or the Court, naming all of the inventors who had not assigned their ownership interest in Patent 6,777,231, which we refer to as the ‘231 Patent, to the University of Pittsburgh, seeking a determination that its assignors, rather than UC’s assignors, are the true inventors of ‘231 Patent. On June 12, 2008, we received the Court’s final order concluding that the University of Pittsburgh’s assignors were the sole inventors of the ‘231 Patent, which terminates UC’s rights to this patent unless the decision of the Court is overturned. The UC assignors are appealing the Court’s decision and a Notice of Appeal was filed on July 9, 2008. We are the exclusive, worldwide licensee of the UC’s rights under this patent in humans, which relates to adult stem cells isolated from adipose tissue that can differentiate into two or more of a variety of cell types. If the UC assignors do not prevail on appeal, our license rights to this patent will be permanently lost.

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. Our intended future cell-related therapeutic products, such as consumables, are likely to fall largely 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.

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, 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 that 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 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 1B . Unresolved Staff Comments

Not applicable.

Item 2 . 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 $144,000 in rent per month.

Item 3 . Legal Proceedings

From time to time, we have been involved in routine litigation incidental to the conduct of our business. As of December 31, 2008, we were not a party to any material legal proceeding. We are not formally a party to the University of Pittsburgh patent litigation. However, we are responsible for reimbursing certain related litigation costs. On June 12, 2008, we received the Court's final order concluding that the University of Pittsburgh's assignors were the sole inventors of the '231 Patent. The UC assignors are appealing the Court's decision. Since our current products and products under development do not practice the '231 Patent, our primary ongoing business activities and product development pipeline should not be affected by the Court's decision. Although the '231 Patent is unrelated to our current products and product pipeline, we believe that the '231 Patent and/or the other technology licensed from UC may have long term potential to be useful for future product developments, and so we have elected to support UC's legal efforts in the appeal of the Court's final order.

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

None.

PART II

Item 5 . Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Prices

From August 2000 (our initial public offering in Germany) through September 2007 our common stock was quoted on the Frankfurt Stock Exchange under the symbol "XMPA" (formerly XMP). In September 2007 our stock closed trading on the Frankfurt Stock Exchange. Effective December 19, 2005, we began trading on the Nasdaq Capital Market under the symbol "CYTX," and have since transferred to the Nasdaq Global Market effective February 14, 2006. The following table shows the high and low sales prices for our common stock for the periods indicated, as reported by the Nasdaq Stock Market. These prices do not include retail markups, markdowns or commissions.

Nasdaq Stock Exchange

	High	Low
2007		
Quarter ended March 31, 2007	$ 7.00	$ 4.56
Quarter ended June 30, 2007	$ 6.69	$ 5.36
Quarter ended September 30, 2007	$ 6.67	$ 4.85
Quarter ended December 31, 2007	$ 6.50	$ 4.88
2008		
Quarter ended March 31, 2008	$ 6.44	$ 4.62
Quarter ended June 30, 2008	$ 8.56	$ 4.75
Quarter ended September 30, 2008	$ 7.97	$ 5.00
Quarter ended December 31, 2008	$ 5.65	$ 1.76

All of our outstanding shares have been deposited with DTCC since December 9, 2005.

As of February 28, 2009, we had approximately 22 registered holders of our common stock. In addition, we are aware that there are at least 4,480 beneficial holders of our common stock. Because many of our shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of individual stockholders represented by these record holders.

Dividends

We have never declared or paid any dividends and do not anticipate paying any in the foreseeable future.

Equity Compensation Plan Information

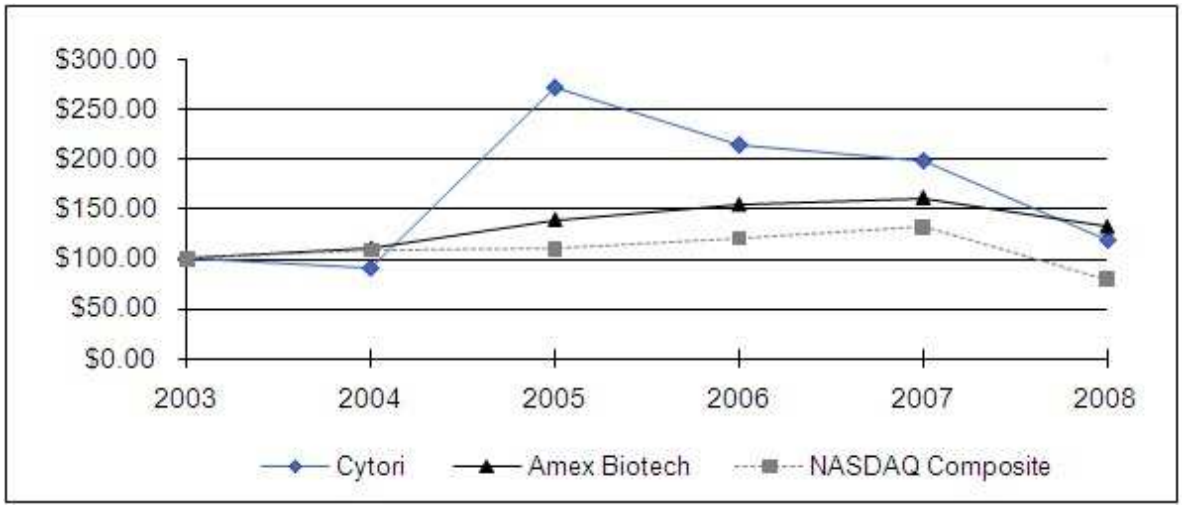
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a)) (c)
Equity compensation plans approved by security holders (1)	3,810,395	$ 4.65	—
Equity compensation plans not approved by security holders (2)	2,118,312	$ 5.68	2,190,450
Total	5,928,707	$ 5.02	2,190,450

(1) *The 1997 Stock Option and Stock Purchase Plan expired on October 22, 2007.*

(2) *The maximum number of shares shall be cumulatively increased on the first January 1 after the Effective Date, August 24, 2004, and each January 1 thereafter for 9 more years, by a number of shares equal to the lesser of (a) 2% of the number of shares issued and outstanding on the immediately preceding December 31, and (b) a number of shares set by the Board.*

Comparative Stock Performance Graph

The following graph shows how an initial investment of $100 in our common stock would have compared to an equal investment in the Nasdaq Composite Index and the Amex Biotechnology Index during the period from December 31, 2003, through December 31, 2008. The performance shown is not necessarily indicative of future price performance.



Item 6. Selected Financial Data

The selected data presented below under the captions “Statements of Operations Data,” “Statements of Cash Flows Data” and “Balance Sheet Data” for, and as of the end of, each of the years in the five-year period ended December 31, 2008, are derived from, and should be read in conjunction with, our audited consolidated financial statements. The consolidated balance sheets as of December 31, 2008 and 2007, and the related consolidated statements of operations and comprehensive loss, stockholders’ equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2008, which have been audited by KPMG LLP, an independent registered public accounting firm, and their report thereon, are included elsewhere in this annual report. The consolidated balance sheets as of December 31, 2006, 2005 and 2004, and the related consolidated statements of operations and comprehensive loss, stockholders’ equity (deficit), and cash flows for the years ended December 31, 2005 and 2004, which were also audited by KPMG LLP, are included with our annual reports previously filed.

The information contained in this table should also be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes thereto included elsewhere in this report (in thousands except share and per share data):

	2008	2007	2006	2005	2004
Statements of Operations Data:					
Product revenues:					
Sales to related party	$ 28	$ 792	$ 1,451	$ 5,634	$ 4,085
Sales to third parties	4,500	—	—	—	2,237
	4,528	792	1,451	5,634	6,322
Cost of product revenues	1,854	422	1,634	3,154	3,384
Gross profit (loss)	2,674	370	(183)	2,480	2,938
Development revenues:					
Development, related party	774	5,168	6,057	51	158
Other, related party	1,500	—	—	—	—
Research grants and other	51	89	419	320	338
	2,325	5,257	6,476	371	496
Operating expenses:					
Research and development	17,371	20,020	21,977	15,450	10,384
Sales and marketing	4,602	2,673	2,055	1,547	2,413
General and administrative	11,727	14,184	12,547	10,208	6,551
Change in fair value of option liabilities	1,060	100	(4,431)	3,645	—
Restructuring charge	—	—	—	—	107
Equipment impairment charge	—	—	—	—	42
Total operating expenses	34,760	36,977	32,148	30,850	19,497
Total operating loss	(29,761)	(31,350)	(25,855)	(27,999)	(16,063)
Other income (expense):					
Gain on sale of assets	—	1,858	—	5,526	—
Gain on the sale of assets, related party	—	—	—	—	13,883
Interest income	230	1,028	708	299	252
Interest expense	(420)	(155)	(199)	(137)	(177)
Other income (expense)	(40)	(46)	(27)	(55)	15
Equity loss in investments	(45)	(7)	(74)	(4,172)	—
Net loss	$ (30,036)	$ (28,672)	$ (25,447)	$ (26,538)	$ (2,090)
Basic and diluted net loss per share	$ (1.12)	$ (1.25)	$ (1.53)	$ (1.80)	$ (0.15)
Basic and diluted weighted average common shares	26,882,431	22,889,250	16,603,550	14,704,281	13,932,390
Statements of Cash Flows Data:					
Net cash used in operating activities	$ (33,389)	$ (29,995)	$ (16,483)	$ (1,101)	$ (12,574)
Net cash provided by investing activities	(393)	5,982	591	911	13,425
Net cash provided by (used in) financing activities	34,928	26,576	16,787	5,357	(831)
Net increase (decrease) in cash	1,146	2,563	895	5,167	20
Cash and cash equivalents at beginning of year	11,465	8,902	8,007	2,840	2,820
Cash and cash equivalents at end of year	$ 12,611	$ 11,465	$ 8,902	$ 8,007	$ 2,840
Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$ 12,611	$ 11,465	$ 12,878	$ 15,845	$ 13,419
Working capital	10,090	4,168	7,392	10,459	12,458
Total assets	25,609	21,507	24,868	28,166	25,470
Deferred revenues, related party	16,474	18,748	23,906	17,311	—

Deferred revenues	2,445	2,379	2,389	2,541	2,592
Option liabilities	2,060	1,000	900	5,331	—
Deferred gain on sale of assets	—	—	—	—	5,650
Long-term deferred rent	168	473	741	573	80
Long-term obligations, less current portion	5,044	237	1,159	1,558	1,128
Total stockholders' equity (deficit)	$ (7,717)	$ (9,400)	$ (10,813)	$ (6,229)	$ 12,833

Item 7 . Management's Discussion and Analysis of Financial Condition and Results of Operations

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 future impact and ongoing appeal with respect to the '231 patent litigation, 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 I above.

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 $30,036,000, $28,672,000 and $25,447,000 for the years ended December 31, 2008, 2007, and 2006 respectively. We have an accumulated deficit of $162,168,000 as of December 31, 2008. Additionally, we have used net cash of $33,389,000, $29,995,000 and $16,483,000 to fund our operating activities for years ended December 31, 2008, 2007, and 2006, 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 financial statements and financial statement schedule 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 significantly 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 negotiations with multiple parties. Our efforts in 2008 to raise capital have taken longer than we initially anticipated. We were however, successful in August 2008, and 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. 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, was funded on

October 14, 2008. We could not access the remaining $7,500,000 under this facility as we were not able to meet certain financial prerequisites that had been established by the Lenders.

We expect to continue to utilize our cash and cash equivalents to fund operations through at least the next few 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. Although there can be no assurance given, we hope to successfully complete one or more additional financing transactions and corporate partnerships in the near-term. Without this additional capital, current working capital and cash generated from sales and containment of operating costs will not provide adequate funding for research, sales and marketing efforts, clinical and preclinical trials, and product development activities at their current levels. If such efforts are not successful, we will need to significantly reduce or curtail our research and development and other operations and this could negatively affect our ability to achieve corporate growth goals. Specifically, we have prepared an operating plan (plan) that calls for us to reduce operations to focus almost entirely on the supply of current products to existing or new distribution channels. This plan would result in reductions to our current sales and marketing headcount (total headcount was 17 at December 31, 2008) as well as a reduction in manufacturing headcount (total headcount of 20 at December 31, 2008). In addition, as part of the plan, there would be minimal expenditures for ongoing scientific research, product development or clinical research. This impacts research and development headcount (total headcount was 57 at December 31, 2008), external subcontractor expenditures, capital outlay and general and administrative expenditures related to the supervision of such activities. In parallel, we would significantly reduce administrative staff (the general and administrative headcount was 32 at December 31, 2008) and salaries consistent with the overall reduction in scope of operations. In aggregate, such reductions could result in eliminations of roles for the majority of the Company's current staff and the deferral or elimination of all ongoing development projects until such time that cash resources were available from operations or outside sources to re-establish development and growth plans. Management is currently reviewing contractual obligations related to the pre-clinical and clinical commitments along with minimum purchase requirements to include deferral of such commitments as part of this plan. While management is actively pursuing its near term financial and strategic alternatives it is also, in parallel, continuing to evaluate the timing of implementation of the alternative operating plan and the initiation of the identified reductions. Based on the impact of the reductions described above and a full year impact of other actions taken by management in Q3 and Q4 of 2008, the cash operating requirements in the near term would be reduced to a range of $1.0 to $1.2 million per month.

Overview

Cytori Therapeutics, Inc. manufactures, develops, and internationally commercializes innovative medical technologies, which allow physicians to practice regenerative medicine. The Company's main product is the Celution® System, which is the first and only broadly available device that provides clinical grade autologous stem and regenerative cells in real-time. This device processes a patient's own stem and regenerative cells at the bedside so their cells may be redelivered during the same surgical procedure. Our commercialization model is based on the sale of the Celution® System and generating recurring revenue thereafter from the sale of single-use consumables used in every patient procedure and on sales of related instrumentation and ancillary products.

Commercial activities are currently focused on marketing the Celution® cell processing system and related family of products across three areas. The first is cosmetic and reconstructive surgery in Europe and Asia-Pacific. The second is to fulfill the demand among physicians in Europe and Asia Pacific for access to clinical grade stem and regenerative cells. The third is to market the Celution-based StemSource® Cell Bank worldwide to hospitals and tissue banks so they can in turn offer patients the opportunity to cyropreserve their own adipose-derive stem and regenerative cells.

The more therapeutic applications that are developed for the Celution ® System and its cellular output, the more opportunities we will have to offer the Celution ® System and related consumable sets to hospitals, clinics, and physicians. For this reason, we are developing and allowing others to develop additional applications for the Celution ® System, which include cardiovascular disease, for which two human clinical trials are underway, renal failure, orthopedic damage, gastrointestinal disorders, and pelvic health conditions, among others.

In the first quarter of 2008, we launched the first commercial generation Celution ® System product platform. Throughout the year and into 2009, we broadened our commercialization efforts and expanded our network of distribution partners. This included the opening of a sales and training center in Europe designed to educate physicians on the technology and its benefits, as well as promote sales within the region. To support future sales efforts, we initiated a 70 patient post-marketing study in Europe last year, with the goal of expanding claims and seeking reimbursement for the use of the

Celution ® System in post-partial mastectomy defect reconstruction. Final results from this study are expected to be reported in 2010.

In partnership with Olympus Corporation, we made significant progress during 2008 toward finalizing the second commercial generation Celution System. 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.

Also during 2008, we were granted several U.S. and International patents and patent allowances, which cover various aspects of the Celution ® System technology and applications of the Celution ® System output. These developments further protect our proprietary rights and competitive position. Lastly, during 2008 we continued enrollment of our European cardiovascular disease clinical trials, which represent our most advanced product pipeline application. Enrollment for both studies should be completed in 2009 with results available as early as 2010.

Our strategy for the future, in this current financial environment with a new product that has multiple potential applications, is to focus the majority of our financial resources on activities that will promote immediate sales of the Celution System. In Europe and Asia Pacific, this entails continued investment in the RESTORE II study to support reimbursement and includes maintaining our level of investment into sales and marketing activities. In the United States, we are continuing to seek regulatory and marketing approval of the Celution® 700 System family of products. We expect to finalize our U.S. regulatory and clinical development strategy in 2009.

The market for clinical grade cells requires substantially fewer resources as the majority of the commercialization efforts are assumed by our distribution partners. This allows us to further expand the installed-base of Celution® Systems. We expect the breadth of these applications for which the device is used in this market will grow significantly as physicians continue to adopt cell based regenerative medicine into their treatment strategies based on the availability of safe clinical grade cells at the point of care.

The StemSource Cell Bank business is being offered through our commercialization partner Green Hospital Supply in Japan, Korea, Taiwan and Thailand, and is being offered by GE Healthcare in select European countries. We believe growth in the cell bank business in 2009 within Asia Pacific will be driven by hospitals where a device is already installed as part of an investigator-initiated study, and where physicians are already familiar with the use of the system and its benefits. The commercialization activities are performed predominantly by our distributors, however we continue to serve in a consulting capacity to assist as needed in sales and service.

Coinciding with our increased investment in commercial activities is a planned reduction in preclinical research and cardiovascular disease development expenses. Because we have passed the feasibility stage and are now manufacturing commercial products, we have less reliance going forward on basic and preclinical development activities. Preclinical research will continue at a base level required to fulfill demands for potential partnerships, expanding intellectual property, and supporting commercial activities. For cardiovascular disease, we plan to complete enrollment in these studies, report data in late 2009 and/or early 2010 at which point we will either seek a co-development partner or pursue further development in a measured way until such time as we have the adequate financial resources to invest in pivotal European studies and U.S. clinical trials.

Cytori's business objectives for 2009 and beyond include the following:

- Exceed global Celution® System and StemSource sales target of $10 million in 2009
- Expand global distribution network in Europe and Asia-Pacific and related sales impact
- Expand Celution® System product claims to include general and plastic surgery procedures
- Expand Celution® System reimbursement in Europe
- Substantial reduction in total operating expenses
- Complete enrollment of RESTORE II in the second quarter of 2009
- Report preliminary RESTORE II results as early as the fourth quarter of 2009 on patients who have been followed for six months at the time of analysis
- Introduce complementary cosmetic and reconstructive surgery products in the U.S. in the third quarter of 2009
- Finalize U.S. regulatory and clinical development and regulatory strategy
- Complete enrollment in cardiovascular studies (PRECISE & APOLLO) and report results in 2010

Olympus Partnership

On November 4, 2005, we entered into a strategic development and manufacturing joint venture agreement and other related agreements ("JV Agreements") with Olympus Corporation ("Olympus"). As part of the terms of the JV Agreements, we formed a joint venture, Olympus-Cytori, Inc. (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 November 4, 2005, the fair value of the Put was determined to be $1,500,000. At December 31, 2008 and 2007, the fair value of the Put was $2,060,000 and $1,000,000, respectively. Fluctuations in the Put value are recorded in the statements of operations as a component of Change in fair value of option liabilities. The fair value of the Put has been recorded as a long-term liability on the balance sheet in the caption option liability.

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

	December 31, 2008	December 31, 2007	November 4, 2005
Expected volatility of Cytori	68.00%	60.00%	63.20%
Expected volatility of the Joint Venture	68.00%	60.00%	69.10%
Bankruptcy recovery rate for Cytori	21.00%	21.00%	21.00%
Bankruptcy threshold for Cytori	$ 16,740,000	$ 9,324,000	$10,780,000
Probability of a change of control event for Cytori	2.80%	2.17%	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	2.25%	4.04%	4.66%

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.

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 of the Celution ® System so that it will contain certain product enhancements and that can be manufactured in a streamlined manner.

In August 2007, we entered into a License and Royalty Agreement with the Joint Venture which provides us the ability 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 allows for the sale of the Cytori-developed Celution ® System platform, including the Celution ® 800/CRS and Celution ® 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 stem and 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. As part of this agreement, Olympus could 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. 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.

MacroPore Biosurgery

Spine and orthopedic products

By selling substantially all of our spine and orthopedic surgical implant business to Kensey Nash Corporation in the second quarter of 2007, we have completed our transition away from the bioresorbable product line for which we were originally founded.

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 recorded as a component of deferred revenues. We did not recognize any development

revenues with respect to Senko during the year ended December 31, 2008. To date we have recognized a total of $371,000 in development revenues ($10,000, $152,000, $51,000, and $158,000 for the years ended December 31, 2007, 2006, 2005, and 2004, respectively) related to this agreement.

Capital Requirements and Liquidity

Research and development for the Celution® System product platform and clinical applications of adipose-derived stem and regenerative cell therapies has been and will continue to be very costly. As a result, we expect to continue incurring losses in the near future. We will focus our efforts on substantially reducing research and development expenses, pre-clinical research, and general and administrative activities throughout 2009 as we conclude our clinical trials (initiated in 2007) and complete the transition to a focus on manufacturing and sale of our Celution® 800/CRS for reconstructive surgery.

Over 99% of our 2008 research and development expenses of $17,371,000 were related to our regenerative cell technology business, and the majority of those were related to optimizing the Celution® 800/CRS for reconstructive surgery research and development of cardiovascular disease applications. We believe research and development expenses will be substantially reduced in 2009 (See additional discussion of liquidity at the beginning of Management Discussion and Analysis). We plan to fund this anticipated research and development from: existing cash and short-term investments; payments, if any, related to potential Celution® System platform commercialization partnerships; payments, if any, related to potential biomaterial divestitures; potential research grants; and sale of common stock through potential future financings. (See additional discussion regarding Liquidity at the beginning of Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.)

As of December 31, 2008, we had cash and cash equivalents on hand of $12,611,000 and an accumulated deficit of $162,168,000.

Results of Operations

Product revenues

Product revenues in 2008 relate to our regenerative cell technology segment and consisted of revenues from our Celution ® System products and Celution ® StemSource ® Cell Bank. Product revenues in 2007 and 2006 relate to our MacroPore Biosurgery segment and consisted of revenues from our spine and orthopedic products.

The following table summarizes the components for the years ended December 31, 2008, 2007, and 2006:

	Years ended		
	2008	**2007**	**2006**
Regenerative cell technology :			
Celution ® Products			
Related party	$ 28,000	$ —	$ —
Third party	4,500,000	—	—
MacroPore Biosurgery :			
Spine and orthopedic products	—	$ 792,000	$ 1,451,000
Total product revenues	$ 4,528,000	$ 792,000	$ 1,451,000
% attributable to Medtronic	—	100%	100%
% attributable to Olympus	0.6%	—	—

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. As of December 31, 2008 we had $66,000 of shipped product orders that did not reach final destination until 2009. Revenue for these items is expected to be

recognized in the quarter ending March 31, 2009. Additionally, we deferred $67,000 as an estimate of the fair value of future deliverables from product revenue and will recognize when such deliverables have been provided or earned.

Spine and orthopedic product revenues represent sales of bioresorbable implants used in spine and orthopedic surgical procedures. We sold substantially all of this line of business to Kensey Nash in May 2007.

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. We expect to have product revenues related to our MacroPore Biosurgery segment again 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 2008 relates to sales of Celution ® System products and a StemSource ® Cell Bank in our regenerative cell technology segment and includes material, manufacturing labor, and overhead costs. Cost of product revenues for 2007 and 2006 relates to spine and orthopedic products in our MacroPore Biosurgery segment and includes material, manufacturing labor, overhead costs, and an inventory provision, if applicable. The following table summarizes the components of our cost of revenues for the years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	**2007**	**2006**
Regenerative cell technology :			
Cost of product revenues	$ 1,811,000	$ —	$ —
Share-based compensation	43,000	—	—
Total regenerative cell technology	1,854,000	—	—
MacroPore Biosurgery :			
Cost of product revenues	—	403,000	1,472,000
Share-based compensation	—	—	88,000
Share-based compensation	—	19,000	74,000
Total MacroPore Biosurgery	—	—	—
		422,000	1,634,000
Total cost of product revenues	$ 1,854,000	$ 422,000	$ 1,634,000
Total cost of product revenues as % of product revenues	40.9%	53.3%	112.6%

Regenerative cell technology:

- The increase in cost of product revenues for the year ended December 31, 2008 as compared to the same periods in 2007 and 2006 was due to Celution ® System product sales which commenced in 2008. Cost of sales included an economic benefit of approximately $347,000 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 year ended December 31, 2008. Cost of product revenues as a percentage of product revenues was 40.9% for the year ended December 31, 2008.

- Cost of product revenues included approximately $43,000 of share-based compensation expense for the year ended December 31, 2008. There was no share-based compensation expense for the years ended December 31, 2007 and 2006. For further details, see share-based compensation discussion below.

MacroPore Biosurgery:

- The decrease in cost of product revenues for the year ended December 31, 2008 as compared to the same period in 2007 was due to our sale of substantially all of the spine and orthopedic product line in May 2007. The decrease in cost of product revenues for the year ended December 31, 2007 as compared to the same period in 2006 was due to a decrease in production and sales in anticipation of the product line sale in May 2007.

- Cost of product revenues includes approximately $0, $19,000 and $74,000 of stock-based compensation expense for the years ended December 31, 2008, 2007 and 2006, respectively. For further details, see stock-based compensation discussion below.

- During the years ended December 31, 2008, 2007 and 2006, we recorded a provision of $0, $0, and $88,000, respectively, related to excess and slow-moving inventory. In 2006, this inventory was produced in anticipation of stocking orders from Medtronic which did not materialize.

The future. We expect to see a nominal decrease of gross profit margin for the regenerative cell technology segment as the balance of production inventory on hand that was previously expensed as research and development cost decreases. 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 years ended December 31, 2008, 2007, and 2006:

	Years ended		
	2008	**2007**	**2006**
Regenerative cell technology :			
Milestone revenue (Olympus)	$ 774,000	$ 5,158,000	$ 5,905,000
Other revenue (Olympus)	1,500,000	—	—
Research grant (NIH)	—	—	310,000
Regenerative cell storage services	4,000	4,000	7,000
Other	47,000	85,000	102,000
Total regenerative cell technology	2,325,000	5,247,000	6,324,000
MacroPore Biosurgery :			
Development (Senko)	—	10,000	152,000
Total development revenues	$ 2,325,000	$ 5,257,000	$ 6,476,000

Regenerative cell technology:

- We recognize deferred revenues, related party, as development revenue when certain performance obligations are met (i.e., using a proportional performance approach). During the year ended December 31, 2008, we recognized $774,000 of revenue associated with our arrangements with Olympus. The revenue recognized in 2008 was a result of completing two study milestones in the first quarter.

  Additionally, we recognized $1,500,000 of other development revenue that relates to the agreement we entered into on February 23, 2006, in which we granted Olympus an exclusive right to negotiate a commercialization collaboration for the use of adipose stem and 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. As part of this agreement, Olympus could 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. Accordingly, on December 31, 2008, we recognized $1,500,000 as other development revenue and reduced our deferred, related party balance for the same amount.

  During the year ended December 31, 2007, we recognized $5,158,000 of revenue associated with our arrangements with Olympus. The revenue recognized in 2007 was a result of completing a pre-clinical study milestone in the second quarter and completing a development milestone in the third quarter. During the year ended December 31, 2006, we recognized $5,905,000 of revenue associated with our arrangements with Olympus. The revenue recognized in 2006 was a result of completing a pre-clinical study milestone in the first quarter, receiving a CE mark for the Celution® 600 System, and reaching three additional milestones in the fourth quarter. One milestone related to the completion of a pre-clinical study while the other two were results of product development efforts.

- The research grant revenue related to our agreement with the National Institutes of Health ("NIH"). Under this arrangement, the NIH reimbursed us for "qualifying expenditures" related to research on Adipose-Derived Cell Therapy for Myocardial Infarction. To receive funds under the grant arrangement, we were 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-Derived Cell Therapy for Myocardial Infarction, and (iii) file appropriate forms and follow appropriate protocols established by the NIH.

  During the year ended December 31, 2006, we incurred $479,000 in expenditures, of which $310,000 were qualified. We recognized a total of $310,000 in revenues for the year ended December 31, 2006, which included allowable grant fees as well as cost reimbursements. Our work under this NIH agreement was completed in 2006; as a result, there were no comparable revenues or costs in 2008 and 2007.

MacroPore Biosurgery (Thin Film):

Under a Distribution Agreement with Senko we are entitled to earn payments based on achieving the following defined milestones:

- Upon notifying Senko of completion of the initial regulatory application to the MHLW for the Thin Film product, we were entitled to a nonrefundable payment of $1,250,000. We so notified Senko on September 28, 2004, received payment in October of 2004, and recorded deferred revenues of $1,250,000. As of December 31, 2006, of the amount deferred, we have recognized development revenues of $371,000 ($10,000 in 2007, $152,000 in 2006, $209,000 prior to 2006).

- In addition, we also received a $1,500,000 license fee that was recorded as a component of deferred revenues in the accompanying balance sheet. Because the $1,500,000 in license fees is potentially refundable, such amounts will not be recognized as revenues until the refund rights expire. Specifically, 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.

- We are also entitled to a non-refundable payment of $250,000 once we achieve commercialization.

The future : We expect to recognize additional development revenues from our regenerative cell technology segment during 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 $1,200,000 in revenues in 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 years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	2007	2006
Regenerative cell technology :			
Regenerative cell technology	$14,319,000	$12,889,000	$11,967,000
Development milestone (Joint Venture)	2,546,000	6,293,000	7,286,000
Research grants (NIH)	—	—	479,000
Stock-based compensation	501,000	645,000	1,015,000
Total regenerative cell technology	17,366,000	19,827,000	20,747,000
MacroPore Biosurgery :			
Bioresorbable polymer implants	—	111,000	1,027,000
Development milestone (Senko)	—	80,000	178,000
Thin Film related research	5,000	—	—
Stock-based compensation	—	2,000	25,000
Total MacroPore Biosurgery	5,000	193,000	1,230,000
Total research and development expenses	$17,371,000	$20,020,000	$21,977,000

Regenerative cell technology:

- Regenerative cell technology 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 $1,494,000 for the year ended December 31, 2008 as compared to the same period in 2007 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. Professional services expense increased by $310,000 from 2007 to 2008, primarily due to increased use of consultants and temporary labor during the year ended December 31, 2008. Pre-clinical and clinical study expense decreased by $1,023,000 from 2007 to 2008 primarily due to a reduction in pre-clinical study activity as we focus on our clinical studies. Additionally, although the overall cost of a clinical trial is generally higher than for a preclinical study, such costs are typically spread out over a longer period of time. Expenses for supplies increased by $352,000 from 2007 to 2008, primarily due to timing of use of inventory supplies for research purposes and purchases of production supplies prior to the related product line commercialization.

- Professional services expense (including pre-clinical and clinical study costs) decreased by $1,163,000 from 2006 to 2007, of which $422,000 was attributed to a decrease in pre-clinical and clinical study expense primarily due to a transition in focus from pre-clinical studies to clinical studies. Rent and utilities expense decreased by $316,000 from 2006 to 2007 primarily due the termination of leases at our Top Gun location in San Diego, CA. These decreases were offset by an increase in travel expense of $389,000 and an increase in repair and maintenance expense of $382,000 from 2006 to 2007.

- 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, including the next generation Celution® device. 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 stem and regenerative cells for multiple large markets. For the years ended December 31, 2008, 2007 and 2006, costs associated with the development of the device were $2,546,000, $6,293,000 and $7,286,000, respectively. These expenses were comprised of $1,310,000, $3,217,000 and $3,663,000 in labor and related benefits, $706,000, $1,973,000 and $2,405,000 in consulting and other professional services, $111,000, $567,000 and $872,000 in supplies and $419,000, $536,000 and $346,000 in other miscellaneous expense, respectively.

- In 2004, we entered into an agreement with the NIH to reimburse us for up to $950,000 (Phase I $100,000 and Phase II $850,000) in "qualifying expenditures" related to research on Adipose-Derived Cell Therapy for Myocardial Infarction. For the year ended December 31, 2006, we incurred $479,000 of direct expenses relating entirely to Phase I and II. Of these expenses, $169,000 were not reimbursed in 2006. To date, we have incurred $1,125,000 of direct expenses ($180,000 of which were not reimbursed) relating to both Phases I and II of the agreement. There were no comparable expenditures in 2008 and 2007 as our work under this NIH agreement was completed during 2006.

- Stock-based compensation for the regenerative cell technology segment of research and development was $501,000, $645,000 and $1,015,000 for the years ended December 31, 2008, 2007 and 2006, respectively. See stock-based compensation discussion below for more details.

MacroPore Biosurgery:

- Our bioresorbable surgical implants platform technology is used for development of spine and orthopedic products and Thin Film products. Research and development expenses for bioresorbable polymer implants substantially decreased in 2007 and were essentially ceased by 2008, due to the termination of spine and orthopedics product research upon sale of substantially all of this product line in May 2007.

- Under a distribution agreement with Senko, we are responsible for the completion of the initial regulatory application to the MHLW and commercialization of the Thin Film product line in Japan. Commercialization occurs when one or more Thin Film product registrations are completed with the MHLW. During the years ended December 31, 2007 and 2006, we incurred $80,000 and $178,000, respectively, of expenses related to this regulatory and registration process. We did not incur any expenses related to this regulatory and registration process for the year ended December 31, 2008.

- Share-based compensation for the MacroPore Biosurgery segment of research and development for the years ended December 31, 2007 and 2006 was $2,000 and $25,000, respectively. There were no share-based compensation expenses for the MacroPore Biosurgery segment of research and development for the year ended December 31, 2008. 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 7, 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. Before the sale of our spine and orthopedic implant product line in May 2007, Medtronic was responsible for the distribution, marketing, and sales support of our spine and orthopedic devices. The following table summarizes the components of our sales and marketing expenses for the years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	**2007**	**2006**
Regenerative cell technology :			
International sales and marketing	$ 4,065,000	$ 2,231,000	$ 1,271,000
Stock-based compensation	361,000	265,000	517,000
Total regenerative cell technology	4,426,000	2,496,000	1,788,000
MacroPore Biosurgery :			
General corporate marketing	—	21,000	154,000
International sales and marketing	176,000	156,000	104,000
Stock-based compensation	—	—	9,000
Total MacroPore Biosurgery	176,000	177,000	267,000
Total sales and marketing	$ 4,602,000	$ 2,673,000	$ 2,055,000

Regenerative Cell Technology:

- The increase in international sales and marketing expense for the year ended December 31, 2008 as compared to the same period in 2007 was mainly attributed to the increase in salary and related benefits expense of $974,000, not including share-based compensation, an increase in travel related expenses of $321,000, and an increase in printing, supplies, and postage of $155,000, 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.

  The increase in international sales and marketing expense for the year ended December 31, 2007 as compared to same period in 2006 was mainly attributed to the increase in salary and related benefits expense of $409,000, as well as other increases due to our regenerative cell technology strategy.

- Stock-based compensation for the regenerative cell segment of sales and marketing for the year ended December 31, 2008, 2007 and 2006 was $361,000, $265,000 and $517,000, respectively. See stock-based compensation discussion below for more details.

MacroPore Biosurgery:

- General corporate marketing expenditures relate to expenditures for maintaining our corporate image and reputation within the research and surgical communities relevant to bioresorbable implants. Expenditures in this area declined to $0 in 2008 from $21,000 in 2007 and $154,000 in 2006 as we focused on our regenerative cell technology business and shifted our focus from our spine and orthopedic implant business.

- International sales and marketing expenditures relate to costs associated with developing an international bioresorbable Thin Film distributor and supporting a bioresorbable Thin Film sales office in Japan.

- Stock-based compensation for the MacroPore Biosurgery segment of sales and marketing for the years ended December 31, 2006 was $9,000. There was no stock-based compensation for the MacroPore Biosurgery segment of sales and marketing for the years ended December 31, 2008 and 2007. See stock-based compensation discussion below for more details.

The future . We expect sales and marketing expenditures related to the regenerative cell technology to be maintained at or near current levels 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 7, 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 years ended December 31, 2008, 2007, and 2006:

	Years ended		
	2008	**2007**	**2006**
General and administrative	$10,375,000	$12,805,000	$10,967,000
Stock-based compensation	1,352,000	1,379,000	1,580,000
Total general and administrative expenses	$11,727,000	$14,184,000	$12,547,000

- General and administrative expense, for the year ended December 31, 2008 as compared to the same period in 2007 decreased by $2,457,000. An overall decrease in general and administrative expenses (excluding share-based compensation) occurred primarily from a decrease in legal fees related to the '231 Patent (see below) of $1,793,000 and decrease in salary and related benefit expense, excluding share-based compensation) of $729,000 for the year ended December 31, 2008 as compared to the same periods in 2007.

- General and administrative expense, for the year ended December 31, 2007 as compared to the same period in 2006 increased by $1,637,000. This was primarily a result of increases in salary and related benefit expense of $802,000 and increases in professional services of $1,160,000, offset by a decrease in stock-based compensation of $201,000 for the year ended December 31, 2007 as compared with 2006. The increase in salary and related benefit expense was mainly attributed to an increase in headcount. The increase in professional services was mainly attributed to an increase of $266,000 in consulting services, increases in accounting fees of $196,000, and an increase in legal expenses of $863,000, partly incurred in connection with the 231 Patent (see below), offset by a decrease in other professional services of $165,000. In addition, we incurred a non-recurring fee of $322,000 related to our February 2007 sale of common stock.

- We have incurred substantial legal expenses in connection with the University of Pittsburgh's lawsuit. Although we are not litigants and are not responsible for any settlement costs, if we are not successful in overturning the Court's decision on the '231 Patent, our license rights to the '231 Patent will be lost. Since our current products and products under development do not practice the '231 Patent, our primary ongoing business activities and product development pipeline should not be affected by the Court's decision. Although the '231 Patent is unrelated to our current products and product pipeline, we believe that the '231 Patent and/or the other technology licensed from UC may have long term potential to be useful for future product developments, and so we have elected to support UC's legal efforts in the appeal of the Court's final order. The amended license agreement we signed with UC in the third quarter of 2006 clarified that we are responsible for patent prosecution and litigation costs related to this lawsuit. In the years ended December 31, 2008, 2007 and 2006, we expensed $625,000, $2,418,000 and $2,189,000, respectively, for legal fees related to this license. Our legal expenses related to this lawsuit and the appeal will fluctuate depending upon the activity incurred during each period.

- Stock-based compensation related to general and administrative expense for the years ended December 31, 2007, 2006 and 2005 was $1,352,000, $1,379,000 and $1,580,000, respectively. See stock-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 three years as we are seeking ways to minimize these expenses where possible. (See additional discussion regarding Liquidity at the beginning of Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.)

Stock-based compensation expenses

As noted previously, we adopted SFAS 123R on January 1, 2006.

Stock-based compensation expenses include charges related to options issued to employees, directors and non-employees. Prior to January 1, 2006, the stock-based compensation expenditures connected to options granted to employees and directors (in their capacity as board members) is the difference between the exercise price of the stock based awards and the market value of our underlying common stock on the date of the grant. Unearned employee stock-based compensation is amortized over the remaining vesting periods of the options, which generally vest over a four-year period from the date of grant. From January 1, 2006 onwards, we adopted FASB No. 123 (revised 2004), "Share-based payments." Under this pronouncement, we measure stock-based compensation expense based on the grant-date fair value of any awards granted to our employees. Such expense is recognized over the period of time that employees provide service to us and earn all rights to the awards.

Stock-based compensation expense related to options to purchase common stock issued to non-employees is the fair value of the stock on the date of issuance, even if such stock contains sales restrictions. The following table summarizes the components of our stock-based compensation for the years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	2007	2006
Regenerative cell technology :			
Cost of product revenues	$ 43,000	$ —	$ —
Research and development related	501,000	645,000	1,015,000
Sales and marketing related	361,000	265,000	517,000
Total regenerative cell technology	905,000	910,000	1,532,000
MacroPore Biosurgery :			
Cost of product revenues	—	19,000	74,000
Research and development related	—	2,000	25,000
Sales and marketing related	—	—	9,000
Total MacroPore Biosurgery	—	21,000	108,000
General and administrative related	1,352,000	1,379,000	1,580,000
Total stock-based compensation	$ 2,257,000	$ 2,310,000	$ 3,220,000

Regenerative cell technology:

- Of the $910,000 charge to stock-based compensation for the year ended December 31, 2007, $6,000 related to award modifications for the termination of the employment of our Vice President of Research, Regenerative Cell Technology. The charge reflects the incremental fair value of (a) the accelerated unvested stock options and (b) the extended vested stock options (over the fair value of the original awards at the modification date). There will be no further charges related these modifications.

- In the first quarter of 2006, we issued 2,500 shares of restricted common stock to a non-employee scientific advisor. The stock is restricted in that it cannot be sold for a specified period of time. There are no vesting requirements. Because the shares issued are not subject to additional future vesting or service requirements, the stock-based compensation expense of $18,000 recorded in the first quarter of 2006 constitutes the entire expense related to this grant, and no future period charges will be reported. The scientific advisor also receives cash consideration as services are performed.

General and Administrative:

- 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.

- During the first quarter of 2007, we issued to our officers and directors stock options to purchase up to 410,000 shares of our common stock, with a four-year vesting schedule for our officers and 24-month graded vesting for our directors. The grant date fair value of option awards granted to our officers and directors was $3.82 and $3.70 per share, respectively. The resulting share-based compensation expense of $1,480,000, net of estimated forfeitures, will be recognized as expense over the respective vesting periods.

- Of the $1,379,000 charge to stock-based compensation for the year ended December 31, 2007, $58,000 related to award modifications for the termination of the employment of two employees. The charge reflects the incremental fair value of (a) the accelerated unvested stock options and (b) the extended vested stock options (over the fair value of the original awards at the modification date). There will be no further charges related these modifications.

During the second quarter of 2007, we made company-wide stock option grants to our non-executive employees to purchase 213,778 shares of our common stock, subject to a four-year graded vesting schedule. The grant date fair value for the awards was $3.65 per share. The resulting share-based compensation expense of $739,000, net of estimated forfeitures, will be recognized as expense over the respective vesting periods.

Of the $3,220,000 charge to stock-based compensation for the year ended December 31, 2006, $420,000 related to extensions and cancellations of awards previously granted to (a) our former Senior Vice President of Finance and Administration, who retired in May 2006, and (b) (i) our former Senior Vice President, Business Development, (ii) our former Vice President, Marketing and Development, and (iii) the position of a less senior employee, whose positions were eliminated during 2006. The charge reflects the incremental fair value of the extended vested stock options over the fair value of the original awards at the modification date as well as the acceleration of unrecognized compensation cost associated with cancelled option awards that would have been recognized if the four individuals continued to vest in their options until the end of their employment term. There will be no further charges related to these modifications.

The future . We will 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 December 31, 2008, the total compensation cost related to non-vested stock options not yet recognized for all our plans is approximately $3,494,000. These costs are expected to be recognized over a weighted average period of 1.67 years.

Change in fair value of option liabilities

The following is a table summarizing the change in fair value of option liabilities for the years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	**2007**	**2006**
Change in fair value of option liability.	$ —	$ —	$ (3,731,000)
Change in fair value of put option liability	1,060,000	100,000	(700,000)
Total change in fair value of option liabilities.	$ 1,060,000	$ 100,000	$ (4,431,000)

- We granted Olympus an option to acquire 2,200,000 shares of our common stock in 2005. The exercise price of the option shares was $10 per share. We had accounted for this grant as a liability because had the option been exercised, we would have been required to deliver listed shares of our common stock to settle the option shares. In accordance with EITF 00-19, “Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company’s Own Stock,” the fair value of this option was re-measured at the end of each quarter, using the Black-Scholes option pricing model, with the movement in fair value reported in the statement of operations as a change in fair value of option liabilities. This option expired unexercised on December 31, 2006.

- 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 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 us at the higher of (a) $22,000,000 or (b) the Put’s fair value. The value of the Put 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:

	December 31, 2008	December 31, 2007	December 31, 2006
Expected volatility of Cytori	68.00%	60.00%	66.00%
Expected volatility of the Joint Venture	68.00%	60.00%	56.60%
Bankruptcy recovery rate for Cytori	21.00%	21.00%	21.00%
Bankruptcy threshold for Cytori	$ 16,740,000	$ 9,324,000	$10,110,000
Probability of a change of control event for Cytori	2.80%	2.17%	1.94%
Expected correlation between fair values of Cytori and the Joint Venture in the future	99.00%	99.00%	99.00%
Risk free interest rate	2.25%	4.04%	4.71%

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.

Other income (expense)

Gain on sale of assets was $1,858,000 for the year ended December 31, 2007. There was no gain on sale of assets for the years ended December 31, 2008 and 2006.

In May 2007, we sold to Kensey Nash our intellectual property rights and tangible assets related to our spine and orthopedic bioresorbable implant product line, a part of our MacroPore Biosurgery business. Excluded from the sale was our Japan Thin Film product line. We received $3,175,000 in cash related to the disposition. The assets comprising the spine and orthopedic product line transferred to Kensey Nash were as follows:

	Carrying Value Prior to Disposition
Inventory	$ 94,000
Other current assets	17,000
Assets held for sale	436,000
Goodwill	465,000
	$ 1,012,000

We incurred expenses of $109,000 in connection with the sale during the second quarter of 2007. As part of the disposition agreement, we were required to provide training to Kensey Nash representatives in all aspects of the manufacturing process related to the transferred spine and orthopedic product line, and to act in the capacity of a product manufacturer from the point of sale through August 2007. Because of these additional manufacturing requirements, we deferred $196,000 of the gain related to the outstanding manufacturing requirements, and we recognized $1,858,000 as a gain on sale in the statement of operations during the second quarter of 2007. These manufacturing requirements were completed in August 2007 as planned, and the associated costs were classified against the deferred balance, reducing it to zero. No further costs or adjustments relating to this product line sale are anticipated.

The revenues and expenses related to the spine and orthopedic product line transferred to Kensey Nash for the years ended December 31, 2007 and 2006 were as follows:

	For the years ended December 31,	
	2007	2006
Revenues	$ 792,000	$ 1,451,000
Cost of product revenues	(422,000)	(1,634,000)
Research & development	(113,000)	(1,052,000)
Sales & marketing	(21,000)	(163,000)

The future . No additional gains will be recognized related to either sale.

Financing items

The following table summarizes interest income, interest expense, and other income and expenses for the years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	2007	2006
Interest income	$ 230,000	$ 1,028,000	$ 708,000
Interest expense	(420,000)	(155,000)	(199,000)
Other income (expense)	(40,000)	(46,000)	(27,000)
Total	$ (230,000)	$ 827,000	$ 482,000

- Interest income decreased for the year December 31, 2008 as compared to the same period in 2007 due to a decrease in interest rates and cash balance available for investment. Interest income increased in 2007 as compared to 2006 due to a larger balance of funds available for investment, as a result of (i) the sale of common stock and common stock warrants under the shelf registration statement in February 2007, (ii) proceeds from the common stock private placement to Green Hospital Supply, Inc. in April 2007, and (iii) proceeds from the sale of our bioresorbable spine and orthopedic surgical implant product line to Kensey Nash in May 2007.

- Interest expense increased in 2008 as compared to 2007 due to interest incurred as well as 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. Interest expense decreased in 2007 as compared to 2006 due to the lower principal balances on our long-term equipment-financed borrowings, which were fully repaid in 2008.

- The changes in other income (expense) in 2008, 2007 and 2006 resulted primarily from changes in foreign currency exchange rates.

The future . Interest income earned in 2009 will be dependent on our levels of funds available for investment as well as general economic conditions. We expect interest expense to increase in 2009 as we continue to repay the term loan balance.

Equity loss from investment in Joint Venture

The following table summarizes equity loss from investment in joint venture for the years ended December 31, 2008, 2007 and 2006:

	Years ended		
	2008	2007	2006
Equity loss from investment in joint venture	$ (45,000)	$ (7,000)	$ (74,000)

The losses relate 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 two to three 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 December 31, 2008, 2007 and 2006:

	Years ended		
	2008	2007	2006
Cash and cash equivalents	$ 12,611,000	$ 11,465,000	$ 8,902,000
Short-term investments, available for sale	—	—	3,976,000
Total cash and cash equivalents and short-term investments, available for sale	$ 12,611,000	$ 11,465,000	$ 12,878,000
Current assets	$ 17,225,000	$ 12,238,000	$ 13,978,000
Current liabilities	7,135,000	8,070,000	6,586,000
Working capital	$ 10,090,000	$ 4,168,000	$ 7,392,000

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 very 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 financial statements and financial statement schedule 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 significantly 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 negotiations with multiple parties. Our efforts in 2008 to raise capital have taken longer than we initially anticipated. However, in August 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. 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, was funded on October 14, 2008. We could not access the remaining $7,500,000 under this facility as we were not able to meet certain financial prerequisites that had been established by the Lenders.

We expect to continue to utilize our cash and cash equivalents to fund operations through at least the next few 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. Although there can be no assurance given, we hope to successfully complete one or more additional financing transactions and corporate partnerships in the near-term. Without this additional capital, current working capital and cash generated from sales and containment of operating costs will not provide adequate funding for research, sales and marketing efforts, clinical and preclinical trials, and product development activities at their current levels. If such efforts are not successful, we will need to significantly reduce or curtail our research and development and other operations and this could negatively affect our ability to achieve corporate growth goals. Specifically, we have prepared an operating plan (plan) that calls for us to reduce operations to focus almost entirely on the supply of current products to existing or new distribution channels. This plan would result in reductions to our current sales and marketing headcount (total headcount was 17 at December 31, 2008) as well as a reduction in manufacturing headcount (total headcount of 20 at December 31, 2008). In addition, as part of this plan, there would be minimal expenditures for ongoing scientific research, product development or clinical research. This impacts research and development headcount (total headcount was 57 at December 31, 2008), external

subcontractor expenditures, capital outlay and general and administrative expenditures related to the supervision of such activities. In parallel, we would significantly reduce administrative staff (the general and administrative headcount was 32 at December 31, 2008) and salaries consistent with the overall reduction in scope of operations. In aggregate, such reductions could result in eliminations of roles for the majority of the Company's current staff and the deferral or elimination of all ongoing development projects until such time that cash resources were available from operations or outside sources to re-establish development and growth plans. Management is currently reviewing contractual obligations related to the pre-clinical and clinical commitments along with minimum purchase requirements to include deferral of such commitments as part of this plan. While management is actively pursuing its near term financial and strategic alternatives it is also, in parallel, continuing to evaluate the timing of implementation of the alternative operating plan and the initiation of the identified reductions. Based on the impact of the reductions described above contemplated by the plan and a full year impact of other actions taken by management in Q3 and Q4 of 2008, the cash operating requirements in the near term would be reduced to a range of $1.0 to $1.2 million per month.

From inception to December 31, 2008, 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.

In January 2006, we also received an additional $11,000,000 upon our receipt of a CE mark for the Celution® 600 and received an additional $1,500,000 in the first half of 2006 in exchange for the grant to Olympus of an exclusive right to negotiate a commercialization collaboration for the use of adipose stem and regenerative cells for a specific therapeutic area outside of cardiovascular disease.

In August 2006, we sold 2,918,000 shares of our common stock at $5.75 per share for an aggregate of approximately $16,800,000. Olympus purchased $11,000,000 of these shares and the remaining balance was purchased by certain institutional investors. We received proceeds of $16,219,000, net of related offering costs and fees.

In February 2007, we sold units consisting of 3,746,000 shares of common stock and 1,873,000 common stock warrants (with an exercise price of $6.25 per share) to institutional and accredited investors. We received proceeds of approximately $19,901,000, net of related offering costs and fees.

We received net proceeds of $6,000,000 from the sale of 1,000,000 shares of common stock to Green Hospital Supply, Inc. in a private placement in April 2007.

In May 2007, we successfully divested substantially all of our spine and orthopedic product line to Kensey Nash for gross proceeds of $3,175,000.

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 December 31, 2008, Green Hospital Supply, Inc. holds approximately 10.2% 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.

On October 14, 2008, General Electric Capital Corporation and Silicon Valley Bank (together, the “Lenders”) funded a term loan in the amount of $7,500,000 less fees and expenses. In connection with the loan facility, on October 14, 2008, we issued to each Lender a warrant to purchase up to 89,074 shares of our common stock at an exercise price of $4.21 per share. These warrants are immediately exercisable and will expire on October 14, 2018.

Our cash requirements for 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 December 31, 2008, 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 7, 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	$ 7,914,000	$ 2,047,000	$ 5,847,000	$ 20,000	$ —
Interest commitment on long-term obligations	1,376,000	741,000	628,000	7,000	—
Operating lease obligations	2,746,000	1,754,000	899,000	85,000	8,000
Minimum purchase requirements	2,125,000	850,000	1,275,000	—	—
Pre-clinical research study obligations	563,000	563,000	—	—	—
Clinical research study obligations	5,839,000	4,000,000	1,839,000	—	—
Total	$ 20,563,000	$ 9,955,000	$ 10,488,000	$ 112,000	$ 8,000

Net cash (used in) provided by operating, investing and financing activities for the years ended December 31, 2008, 2007 and 2006, is summarized as follows:

	Years Ended		
	2008	2007	2006
Net cash used in operating activities	$ (33,389,000)	$ (29,995,000)	$ (16,483,000)
Net cash provided by (used in) investing activities	(393,000)	5,982,000	591,000
Net cash provided by financing activities	34,928,000	26,576,000	16,787,000

Operating activities

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

Research and development efforts, other operational activities, and a comparatively small amount of product sales generated a $30,036,000 net loss for the year ended December 31, 2008. The cash impact of this loss was $33,389,000, after adjusting for the $774,000 of deferred revenue, related party, recognized in 2008, for which cash was received in earlier years, $1,533,000 of depreciation and amortization, a $1,060,000 change in the value of our put option, $2,257,000 non-cash stock based compensation expense, and $178,000 of non-cash amortization of deferred financing costs and debt discount along with other 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 a $28,672,000 net loss for the year ended December 31, 2007. The cash impact of this loss was $29,995,000, after adjusting for the $5,158,000 of deferred revenue, related party, recognized in 2007, for which cash was received in earlier years, $1,858,000 of gain on sale of assets, $1,616,000 of depreciation and $2,310,000 non-cash stock based compensation expense, along with other 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 a $25,447,000 net loss for the year ended December 31, 2006. The cash impact of this loss was $16,483,000, after adjusting for the $11,000,000 cash we received in 2006 from the Joint Venture upon obtaining the CE Mark in the first quarter of 2006, the $1,500,000 received from Olympus mentioned above, $2,120,000 of non-cash depreciation and amortization, $3,220,000 non-cash stock based compensation expense, and $4,431,000 non-cash change in the fair value of option liabilities, along with other changes in working capital due to timing of product shipments and payment of liabilities.

Investing activities

Net cash used by investing activities for the year ended December 31, 2008 resulted primarily from purchases of property and equipment.

Net cash provided by investing activities for the year ended December 31, 2007 resulted primarily from net proceeds from the purchase and sale of short-term investments and proceeds from the sale of assets, offset in part by purchases of property and equipment.

Net cash provided by investing activities for the year ended December 31, 2006 resulted primarily from net proceeds from the purchase and sale of short-term investments, offset in part by expenditures for leasehold improvements.

Capital spending is essential to our product innovation initiatives and to maintain our operational capabilities. For the years ended December 31, 2008, 2007 and 2006, we used cash to purchase $393,000, $563,000 and $3,138,000, respectively, of property and equipment to support manufacturing of our bioresorbable implants and for the research and development of the regenerative cell technology platform. The increase in 2006 capital spending was caused primarily by expenditures for leasehold improvements made to our new facilities.

Financing Activities

The net cash provided by financing activities for the year ended December 31, 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 and the private

placement offering 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 for approximately $17,000,000 in gross proceeds, of which Olympus Corporation acquired 1,000,000 unregistered shares and 500,000 common stock warrants in exchange for $6,000,000 of the total proceeds raised. Additionally, in October 2008, we obtained a term loan in the amount of $7,500,000, less fees and expenses, from General Electric Capital Corporation and Silicon Valley Bank (together, the "Lenders").

The net cash provided by financing activities for the year ended December 31, 2007 related mainly to the issuance of common stock and common stock warrants under the shelf registration statement in exchange for net proceeds of $19,901,000 as well as a common stock private placement made with Green Hospital Supply, Inc. for net proceeds of $6,000,000. Net cash proceeds provided by financing activities also included proceeds from the exercise of employee stock options, offset to some extent by principal payments on long-term obligations.

The net cash provided by financing activities for the year ended December 31, 2006 related mainly to the issuance of 2,918,255 shares of our common stock in exchange for $16,219,000, net of related expenses. Net cash provided by financing activities also included proceeds from the exercise of employee stock options, offset by principal payments on long-term obligations.

Critical Accounting Policies and Significant Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of our assets, liabilities, revenues and expenses, and that affect 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. These are our policies that require us to make our most significant judgments and, as a result, could have the greatest impact on our future financial results.

Revenue Recognition

We derive our revenue from a number of different sources, including but not limited to:

- Fees for achieving certain defined milestones under research and/or development arrangements.
- Product sales, and
- Payments under license or distribution agreements.

A number of our revenue generating arrangements are relatively simple in nature, meaning that there is little judgment necessary with regard to the timing of when we recognize revenues or how such revenues are presented in the financial statements.

However, we have also entered into more complex arrangements, including but not limited to our contracts with Olympus, Senko, and the NIH. Moreover, some of our non-recurring transactions, such as our disposition of the majority of our Thin Film business to MAST, contain elements that relate to our revenue producing activities.

As a result, some of our most critical accounting judgments relate to the identification, timing, and presentation of revenue related activities. These critical judgments are as follows:

Multiple-element arrangements

Some of our revenue generating arrangements contains a number of distinct revenue streams, known as "elements." For example, our Distribution Agreement with Senko contains direct or indirect future revenue streams related to:

- A distribution license fee (which was paid at the outset of the arrangement),
- Milestone payments for achieving commercialization of the Thin Film product line in Japan,

- Training for representatives of Senko,
- Sales of Thin Film products to Senko, and
- Royalty payments on future product sales made by Senko to its end customers.

Emerging Issues Task Force Issue 00-21, "Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"), governs whether each of the above elements in the arrangement should be accounted for individually, or whether the entire contract should be treated as a single unit of accounting.

EITF 00-21 indicates that individual elements may be separately accounted for only when:

- The delivered element has stand alone value to the customer,
- There is objective evidence of the fair value of the remaining undelivered elements, and
- If the arrangement contains a general right of return related to any products delivered, delivery of the remaining goods and services is probable and within the complete control of the seller.

In the case of the Senko Distribution Agreement, we determined that (a) the milestones payments for achieving commercialization and (b) the future sale of Thin Film products to Senko were "separable" elements. That is, each of these elements, upon delivery, will have stand alone value to Senko and there will be objective evidence of the fair value of any remaining undelivered elements at that time. The arrangement does not contain any general right of return, and so this point is not relevant to our analysis.

On the other hand, we concluded that (a) the upfront distribution license fee, (b) the revenues from training for representatives of Senko, and (c) the payments in the form of royalties on future product sales are not separable elements under EITF 00-21.

In arriving at our conclusions, we had to consider whether our customer, Senko, would receive stand alone value from each delivered element. We also, in some cases, had to support the fair value of certain undelivered elements. Finally, we had to make assumptions about how the non-separable elements of the arrangement are earned, particularly the estimated period over which Senko will benefit from the arrangement (refer to the "Recognition" discussion below for further background).

We also agreed to perform elements under the November 4, 2005 agreements we signed with Olympus, including:

- Granting the Joint Venture (which Olympus is considered to control) an exclusive and perpetual manufacturing license to our device technology, including the Celution® System platform and certain related intellectual property; and
- Completing certain pre-clinical and clinical studies, assisting with product development and seeking regulatory approval and/or clearances toward commercialization of the Celution® System platform.

We concluded that the license and development services must be accounted for as a single unit of accounting. In reaching this conclusion, we determined that the license would not have stand alone value to the Joint Venture. This is because Cytori is the only party that could be reasonably expected to perform certain development contributions and obligations, including product development assistance, certain agreed regulatory filings and generally associated pre-clinical and clinical studies necessary for the Joint Venture to derive value from the license.

Recognition

Besides determining whether to account separately for components of a multiple-element arrangement, we also use judgment in determining the appropriate accounting period in which to recognize revenues that we believe (a) have been earned and (b) are realizable. The following describes some of the recognition issues we have considered during the reporting period.

- Product Revenues

  - 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 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"). Delivery occurs when goods are shipped and title of risk of loss transfer to the customer, in accordance with the terms specified in the arrangement with the customer. 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 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. 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.

    An allowance for doubtful accounts is maintained for estimated losses resulting from the inability of our customers to make required payments. This reserve is determined by analyzing specific customer accounts and applying historical loss rates to the aging of remaining accounts receivable balances. If the financial condition of our customer were to deteriorate, resulting in tehir inability to pay their accounts when due, additional reserves might be required.

    Before the disposal of substantially all of our bioresorbable spine and orthopedic product line in May 2007, we sold our (non-Thin Film) MacroPore Biosurgery products to Medtronic, Inc., a related party. We recognized revenue on product sales to Medtronic upon shipment of ordered products to Medtronic, as title and risk of loss were transferred at that point. In May 2007, we sold to Kensey Nash our intellectual property rights and tangible assets related to our bioresorbable spine and orthopedic product line.

- Upfront License Fees/Milestones

  - As part of the Senko Distribution Agreement, we received an upfront license fee upon execution of the arrangement, which, as noted previously, was not separable under EITF 00-21. Accordingly, the license has been combined with the development (milestones) element to form a single accounting unit. This single element of $3,000,000 in fees includes $1,500,000 which is potentially refundable. We have recognized, and will continue to recognize, the non-contingent fees allocated to this combined element as revenues as we complete each of the performance obligations associated with the milestones component of this combined deliverable. Note that the timing of when we have recognized revenues to date does not

correspond with the cash we received upon achieving certain milestones. For example, the first such milestone payment for $1,250,000 became payable to us when we filed a commercialization application with the Japanese regulatory authorities. However, we determined that the payment received was not commensurate with the level of effort expended, particularly when compared with other steps we believe are necessary to commercialize the Thin Film product line in Japan. Accordingly, we did not recognize the entire $1,250,000 received as revenues, but instead all but $371,000 of this amount is classified as deferred revenues. Approximately $371,000 ($10,000 in 2007, $152,000 in 2006, $51,000 in 2005 and $158,000 in 2004) has been recognized to date as development revenues based on our estimates of the level of effort expended for completed milestones as compared with the total level of effort we expect to incur under the arrangement to successfully achieve regulatory approval of the Thin Film product line in Japan. These estimates were subject to judgment and there may be changes to these estimates as we continue to seek regulatory approval. In fact there can be no assurance that commercialization in Japan will ever be achieved, as we have yet to receive approval from the MHLW for the Thin Film product.

- We also received upfront fees as part of the Olympus arrangements (although, unlike in the Senko agreement, these fees were non-refundable). Specifically, in exchange for an upfront fee, we granted the Joint Venture an exclusive, perpetual license to certain of our intellectual property and agreed to perform additional development activities. This upfront fee has been recorded in the liability account entitled deferred revenues, related party, on our consolidated balance sheet. Similar to the Senko agreement, we expect to recognize revenues from the combined license/development accounting unit as we perform our obligations under the agreements, as this represents our final obligation underlying the combined accounting unit. Specifically, we have recognized revenues from the license/development accounting unit using a "proportional performance" methodology, resulting in the de-recognition of amounts recorded in the deferred revenues, related party, account as we complete various milestones underlying the development services. 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. We established the R&D milestones based upon our development obligations to the JV and the specific R&D support activities to be performed to achieve these obligations. Our R&D milestones consist of the following primary performance categories: product development, regulatory approvals, and generally associated pre-clinical and clinical trials. Within each category are milestones that take substantive effort to complete and are critical pieces of the overall progress towards completion of the next generation product, which we are obligated to support within the agreements entered into with Olympus. To determine whether substantive effort was required to achieve the milestones, we considered the external costs, required personnel and relevant skill levels, the amount of time required to complete each milestone, and the interdependent relationships between the milestones, in that the benefits associated with the completion of one milestone generally support and contribute to the achievement of the next. Determination of the relative values assigned to each milestone involved substantial judgment. The assignment process was based on discussions with persons responsible for the development process and the relative costs of completing each milestone. We considered the costs of completing the milestones in allocating the portion of the "deferred revenues, related party" account balance to each milestone. Management believes that, while the costs incurred in achieving the various milestones are subject to estimation, due to the high correlation of such costs to outputs achieved, the use of external contract research organization ("CRO") costs and internal labor costs as the basis for the allocation process provides management the ability to accurately and reasonably estimate such costs. The accounting policy described above could result in revenues being recorded in an earlier accounting period than had other judgments or assumptions been made by us.

- Government Grants

  - We are at times eligible to receive grants from the NIH related to various research activities. Revenues derived from reimbursement of direct out-of-pocket expenses for research costs associated with grants are recorded 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,

the Company records 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 the consolidated statements of operations. Additionally, research arrangements we have with NIH, as well commercial enterprises such as Olympus and Senko, are considered a key component of our central and ongoing operations. Moreover, the government obtains rights under the arrangement, in the same manner (but perhaps not to the same extent) as a commercial customer that similarly contracts with us to perform research activities. For instance, the government and any authorized third parties may use our federally funded research and/or inventions without payment of royalties to us. Accordingly, the inflows from such arrangements are presented as revenues in the consolidated statements of operations.

Our policy was to recognize revenues under the NIH grant arrangement as the lesser of (i) qualifying costs incurred (and not previously recognized), plus our allowable grant fees for which we are entitled to funding or (ii) the amount determined by comparing the outputs generated to date versus the total outputs expected to be achieved under the research arrangement.

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 December 31, 2008. 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. Moreover, this testing must be performed at a level of the organization known as the reporting unit. A reporting unit is at least the same level as a company's operating segments, and sometimes even one level lower. Our two reporting units are the same as our two operating segments.

Specifically, the process for testing goodwill for impairment under SFAS 142 involves the following steps:

- Company assets and liabilities, including goodwill, are allocated to each reporting unit for purposes of completing the goodwill impairment test.
- The carrying value of each reporting unit – that is, the sum of all of the net assets allocated to the reporting unit – is then compared to its fair value.
- If the fair value of the reporting unit is lower than its carrying amount, goodwill may be impaired – additional testing is required.

The application of the goodwill impairment test involves a substantial amount of judgment. For instance, SFAS 142 requires that assets and liabilities be assigned to a reporting unit if both of the following criteria are met:

- The asset will be employed in or the liability relates to the operations of a reporting unit.
- The asset or liability will be considered in determining the fair value of the reporting unit.

We developed mechanisms to assign company-wide assets like shared property and equipment, as well as company-wide obligations such as borrowings under our GE loan facility, to our two reporting units. In some cases, certain assets were not allocable to either reporting unit and were left unassigned.

In 2007, all goodwill that previously had been assigned to our MacroPore Biosurgery reporting unit was derecognized as a result of our sale of our spine and orthopedic product line to Kensey Nash. Accordingly, there was no need to test this component of our business for goodwill impairment in 2008 and 2007.

Also, in 2008, we completed our goodwill impairment testing for our regenerative cell technology reporting unit using an income-based approach incorporating discounted projections of estimated future cash flows as well as a market-based approach. We concluded that the fair value of this unit exceeded its carrying value, and that none of our reported goodwill was impaired.

Again, the manner in which we assigned assets, liabilities, and goodwill to our reporting units, as well as how we determined the fair value of such reporting units, involves significant uncertainties and estimates. The judgments employed may have an effect on whether a goodwill impairment loss is recognized.

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 ("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. In fact, 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 December 31, 2008 or for the year 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.

Net Operating Loss and Tax Credit Carryforwards

We have established a valuation allowance against our net deferred tax assets due to the uncertainty surrounding the realization of such assets. We periodically evaluate the recoverability of the deferred tax assets. At such time as it is determined that it is more likely than not that deferred assets are realizable, the valuation allowance will be reduced. We have recorded a valuation allowance of $61,965,000 as of December 31, 2008 to reflect the estimated amount of deferred tax assets that may not be realized. We increased our valuation allowance by approximately $11,529,000 during the year ended December 31, 2008. The valuation allowance includes approximately $579,000 related to stock option deductions, the benefit of which, if realized, will eventually be credited to equity and not to income.

At December 31, 2008, we had federal and state tax loss carryforwards of approximately $117,177,000 and $98,679,000 respectively. The federal and state net operating loss carryforwards begin to expire in 2019 and 2011 respectively, if unused. At December 31, 2008, we had federal and state tax credit carryforwards of approximately $3,364,000 and $3,043,000

respectively. The federal credits will begin to expire in 2017, if unused, and $160,000 of the state credits will begin to expire in 2009 if unused. The remaining state credits carry forward indefinitely. In addition, we had a foreign tax loss carryforward of $4,142,000 and $93,000 in Japan and Italy, respectively.

The Internal Revenue Code limits the future availability of net operating loss and tax credit carryforwards that arose prior to certain cumulative changes in a corporation's ownership resulting in a change of control of Cytori. Due to prior ownership changes as defined in IRC Section 382, a portion of our net operating loss and tax credit carryforwards are limited in their annual utilization. In September 1999, we experienced an ownership change for purposes of the IRC Section 382 limitation. As of December 31, 2008, these pre-change net operating losses and credits are fully available.

Additionally, in 2002 when we purchased StemSource, we acquired federal and state net operating loss carryforwards of approximately $2,700,000 and $2,700,000 respectively. This event triggered an ownership change for purposes of IRC Section 382. It is estimated that the pre-change net operating losses and credits will be fully available by 2008.

We have completed an update to our IRC Section 382 study analysis through April 17, 2007. We have not had any additional ownership changes based on this study.

Recent Accounting Pronouncements

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.

On January 1, 2008, we adopted certain provisions of SFAS No. 157, "Fair Value Measurements" ("SFAS 157"). SFAS 157 provides a single definition of fair value and a common framework for measuring fair value as well as new disclosure requirements for fair value measurements used in financial statements. SFAS 157 applies to reported balances that are required or permitted to be measured at fair value under existing pronouncements; accordingly, the standard does not require any new fair value measurements of reported balances.

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. We do not expect the adoption of the SFAS 157 for non-financial assets and liabilities to have a material impact on our consolidated financial position or results of operations.

On January 1, 2008, we also adopted SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities" ("SFAS 159"), which permits companies to choose to measure many financial instruments and certain other items at fair value. However, we have not elected to measure any additional financial instruments or other items at fair value under the provisions of this standard.

In March 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force (EITF) on Issue No. 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities" ("EITF 07-3"). EITF 07-3 states that nonrefundable advance payments for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the goods are delivered or the related services are performed. The guidance is effective for all periods beginning after December 15, 2007, which we adopted effective January 1, 2008. The adoption of EITF 07-3 did not have a significant effect on our consolidated financial statements.

In December 2007, the FASB issued 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. We do not believe that the adoption of SFAS 160 will have a significant effect on our consolidated financial statements.

In December 2007, the FASB issued 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. We do not believe that the adoption of SFAS 141R will have a significant effect on our consolidated financial statements.

In December 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force on 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. We are currently in the process evaluating whether the adoption of EITF 07-1 will have a significant effect on our consolidated financial statements.

In June 2008, the FASB ratified the consensus on 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 provides a framework for evaluating the terms of a particular instrument to determine whether such instrument is considered a derivative financial instrument. EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and must be applied by recording a cumulative effect adjustment to the opening balance of retained earnings (or other appropriate components of equity) as of the date of adoption. We anticipate the adoption of EITF 07-5 will result is the recognition of a liability for the warrants issued in August 2008 as part of our private placement of common stock of approximately $2.9 million and a corresponding increase in stockholders’ deficit as of January 1, 2009. Future changes in the fair value of the warrant liability will be recognized as a component of earnings (loss).

In October 2008, the FASB issued Staff Position “Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active” (FSP No. 157-3). FSP No. 157-3 clarifies the application of SFAS 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when market for that financial asset is not active. This guidance is effective upon issuance, including prior periods for which financial statements have not been issued. The adoption of FSP No. 157-3 did not have a significant effect on our consolidated financial statements.

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. We do not expect the adoption of this FSP will have a material impact on the our financial statements.

Item 7A . Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to fluctuations in interest rates and 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. Investment securities are subject to market rate risk as their fair value will fall if market interest rates increase. If market interest rates were to increase immediately and uniformly by 100 basis points from the levels prevailing at December 31, 2008, for example, and assuming average investment duration of seven months, the fair value of the portfolio would not decline by a material amount. We do not use derivative financial instruments to mitigate the risk inherent in these securities. However, we do attempt to reduce such risks by generally limiting the maturity date of such securities, diversifying our investments and limiting the amount of credit exposure with any one issuer. While we do not always have the intent, we do

currently have the ability to hold these investments until maturity and, therefore, believe that reductions in the value of such securities attributable to short-term fluctuations in interest rates would not materially affect our financial position, results of operations or cash flows. Changes in interest rates would, of course, affect the interest income we earn on our cash balances after re-investment.

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, which would be Yen denominated.

Item 8 . Financial Statements and Supplementary Data

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Cytori Therapeutics, Inc.:

We have audited the accompanying consolidated balance sheets of Cytori Therapeutics, Inc. (the Company) and subsidiaries as of December 31, 2008 and 2007, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2008. In connection with our audits of the consolidated financial statements, we have also audited the accompanying schedule of valuation and qualifying accounts. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Cytori Therapeutics, Inc. and subsidiaries as of December 31, 2008 and 2007, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

The accompanying consolidated financial statements and financial statement schedule have been prepared assuming that the Company will continue as a going concern. As discussed in note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raise substantial doubt about its ability to continue as a going concern. The Company's research and development activities have historically required substantial capital resources and its ability to raise capital has been adversely affected by current economic conditions. Management's plans in regard to these matters are also described in note 1. The consolidated financial statements and financial statement schedule do not include any adjustments that might result from the outcome of this uncertainty.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Cytori Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 6, 2009, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

San Diego, California
March 6, 2009

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Cytori Therapeutics, Inc.:

We have audited Cytori Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) . Cytori Therapeutics, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting (Item 9A). Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Cytori Therapeutics, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) .

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Cytori Therapeutics, Inc. as of December 31, 2008 and 2007, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2008, and our report dated March 6, 2009, expressed an unqualified opinion on those consolidated financial statements .

/s/ KPMG LLP

San Diego, California
March 6, 2009

CYTORI THERAPEUTICS, INC.
CONSOLIDATED BALANCE SHEETS

	As of December 31,	
	2008	**2007**
Assets		
Current assets:		
Cash and cash equivalents	$ 12,611,000	$ 11,465,000
Accounts receivable, net of allowance for doubtful accounts of $122,000 and $1,000 in 2008 and 2007, respectively	1,308,000	9,000
Inventories, net	2,143,000	—
Other current assets	1,163,000	764,000
Total current assets	17,225,000	12,238,000
Property and equipment, net	2,552,000	3,432,000
Investment in joint venture	324,000	369,000
Other assets	729,000	468,000
Intangibles, net	857,000	1,078,000
Goodwill	3,922,000	3,922,000
Total assets	$ 25,609,000	$ 21,507,000
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 5,088,000	$ 7,349,000
Current portion of long-term obligations	2,047,000	721,000
Total current liabilities	7,135,000	8,070,000
Deferred revenues, related party	16,474,000	18,748,000
Deferred revenues	2,445,000	2,379,000
Option liability	2,060,000	1,000,000
Long-term deferred rent	168,000	473,000
Long-term obligations, less current portion	5,044,000	237,000
Total liabilities	33,326,000	30,907,000
Commitments and contingencies		
Stockholders' deficit:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; -0- shares issued and outstanding in 2008 and 2007	—	—
Common stock, $0.001 par value; 95,000,000 shares authorized; 31,176,275 and 25,962,222 shares issued and 29,303,441 and 24,089,388 shares outstanding in 2008 and 2007, respectively	31,000	26,000
Additional paid-in capital	161,214,000	129,504,000
Accumulated deficit	(162,168,000)	(132,132,000)
Treasury stock, at cost	(6,794,000)	(6,794,000)
Amount due from exercises of stock options	—	(4,000)
Total stockholders' deficit	(7,717,000)	(9,400,000)
Total liabilities and stockholders' deficit	$ 25,609,000	$ 21,507,000

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE CONSOLIDATED FINANCIAL STATEMENTS

CYTORI THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

	For the Years Ended December 31,		
	2008	**2007**	**2006**
Product revenues:			
Related party	$ 28,000	$ 792,000	$ 1,451,000
Third party	4,500,000	—	—
	4,528,000	792,000	1,451,000
Cost of product revenues	1,854,000	422,000	1,634,000
Gross profit (loss)	2,674,000	370,000	(183,000)
Development revenues:			
Development, related party	774,000	5,158,000	5,905,000
Other, related party	1,500,000	—	—
Development	—	10,000	152,000
Research grants and other	51,000	89,000	419,000
	2,325,000	5,257,000	6,476,000
Operating expenses:			
Research and development	17,371,000	20,020,000	21,977,000
Sales and marketing	4,602,000	2,673,000	2,055,000
General and administrative	11,727,000	14,184,000	12,547,000
Change in fair value of option liabilities	1,060,000	100,000	(4,431,000)
Total operating expenses	34,760,000	36,977,000	32,148,000
Operating loss	(29,761,000)	(31,350,000)	(25,855,000)
Other income (expense):			
Gain on sale of assets	—	1,858,000	—
Interest income	230,000	1,028,000	708,000
Interest expense	(420,000)	(155,000)	(199,000)
Other expense, net	(40,000)	(46,000)	(27,000)
Equity loss from investment in joint venture	(45,000)	(7,000)	(74,000)
Total other income (loss)	(275,000)	2,678,000	408,000
Net loss	(30,036,000)	(28,672,000)	(25,447,000)
Other comprehensive income (loss) - unrealized holding income (loss)	—	(1,000)	17,000
Comprehensive loss	$ (30,036,000)	$ (28,673,000)	$ (25,430,000)
Basic and diluted net loss per common share	$ (1.12)	$ (1.25)	$ (1.53)
Basic and diluted weighted average common shares	26,882,431	22,889,250	16,603,550

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE CONSOLIDATED FINANCIAL STATEMENTS

CYTORI THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
FOR THE YEARS ENDED DECEMBER 31, 2008, 2007 AND 2006

	Common Stock		Additional Paid-in	Accumulated	Treasury Stock		Accumulated Other Comprehensive	Amount due From Exercises of Stock	
	Shares	Amount	Capital	Deficit	Shares	Amount	Income (Loss)	Options	Total
Balance at December 31, 2005	18,194,283	$ 18,000	$ 82,196,000	$ (78,013,000)	2,872,834	$(10,414,000)	$ (16,000)	$ —	$ (6,229,000)
Stock-based compensation expense	—	—	3,202,000	—	—	—	—	—	3,202,000
Issuance of common stock under stock option plan	397,205	1,000	934,000	—	—	—	—	—	935,000
Compensatory common stock awards	2,500	—	18,000	—	—	—	—	—	18,000
Sale of common stock	2,918,255	3,000	16,216,000	—	—	—	—	—	16,219,000
Stock issued for license amendment	100,000	—	487,000	—	—	—	—	—	487,000
Amount due from exercises of stock options	—	—	—	—	—	—	—	(15,000)	(15,000)
Unrealized gain on investments	—	—	—	—	—	—	17,000	—	17,000
Net loss for the year ended December 31, 2006	—	—	—	(25,447,000)	—	—	—	—	(25,447,000)
Balance at December 31, 2006	21,612,243	22,000	103,053,000	(103,460,000)	2,872,834	(10,414,000)	1,000	(15,000)	(10,813,000)
Stock-based compensation expense	—	—	2,310,000	—	—	—	—	—	2,310,000
Issuance of common stock under stock option plan	604,334	1,000	1,863,000	—	—	—	—	—	1,864,000
Sale of common stock	3,745,645	3,000	19,898,000	—	—	—	—	—	19,901,000
Sale of treasury stock	—	—	2,380,000	—	(1,000,000)	3,620,000	—	—	6,000,000
Amount due from exercises of stock options	—	—	—	—	—	—	—	11,000	11,000
Unrealized loss on investments	—	—	—	—	—	—	(1,000)	—	(1,000)

Net loss for the year ended December 31, 2007	—	—	—	(28,672,000)	—	—	—	—	(28,672,000)
Balance at December 31, 2007	25,962,222	26,000	129,504,000	(132,132,000)	1,872,834	(6,794,000)	—	(4,000)	(9,400,000)
Stock-based compensation expense	—	—	2,257,000	—	—	—	—	—	2,257,000
Issuance of common stock under stock option plan	388,536	—	790,000	—	—	—	—	—	790,000
Sale of common stock	4,825,517	5,000	28,099,000	—	—	—	—	—	28,104,000
Amount due from exercises of stock options	—	—	—	—	—	—	—	4,000	4,000
Allocation of fair value for debt warrants	—	—	564,000	—	—	—	—	—	564,000
Net loss for the year ended December 31, 2008	—	—	—	(30,036,000)	—	—	—	—	(30,036,000)
Balance at December 31, 2008	31,176,275	$ 31,000	$161,214,000	$(162,168,000)	1,872,834	$ (6,794,000)	$ —	$ —	$ (7,717,000)

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE CONSOLIDATED FINANCIAL STATEMENTS

CYTORI THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
	2008	**2007**	**2006**
Cash flows from operating activities:			
Net loss	$ (30,036,000)	$ (28,672,000)	$ (25,447,000)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,533,000	1,616,000	2,120,000
Amortization of deferred financing costs and debt discount	178,000	—	—
Inventory provision	—	70,000	88,000
Warranty provision (reversal)	(44,000)	(65,000)	(23,000)
Increase (reduction) in allowance for doubtful accounts	121,000	(1,000)	(7,000)
Change in fair value of option liabilities	1,060,000	100,000	(4,431,000)
Gain on sale of assets	—	(1,858,000)	—
Stock-based compensation	2,257,000	2,310,000	3,220,000
Stock issued for license amendment	—	—	487,000
Equity loss from investment in joint venture	45,000	7,000	74,000
Increases (decreases) in cash caused by changes in operating assets and liabilities:			
Accounts receivable	(1,420,000)	217,000	598,000
Inventories	(2,143,000)	—	6,000
Other current assets	(147,000)	(70,000)	(90,000)
Other assets	(63,000)	(40,000)	30,000
Accounts payable and accrued expenses	(2,217,000)	1,827,000	281,000
Deferred revenues, related party	(2,274,000)	(5,158,000)	6,595,000
Deferred revenues	66,000	(10,000)	(152,000)
Long-term deferred rent	(305,000)	(268,000)	168,000
Net cash used in operating activities	(33,389,000)	(29,995,000)	(16,483,000)
Cash flows from investing activities:			
Proceeds from the sale and maturity of short-term investments	5,739,000	28,007,000	67,137,000
Purchases of short-term investments	(5,739,000)	(24,032,000)	(63,258,000)
Proceeds from the sale of assets	—	3,175,000	—
Costs from sale of assets	—	(305,000)	—
Purchases of property and equipment	(393,000)	(563,000)	(3,138,000)
Investment in joint venture	—	(300,000)	(150,000)
Net cash provided by (used in) investing activities	(393,000)	5,982,000	591,000
Cash flows from financing activities:			
Principal payments on long-term obligations	(958,000)	(1,200,000)	(952,000)
Proceeds from long-term obligations	7,500,000	—	600,000
Debt issuance costs	(513,000)	—	—
Proceeds from exercise of employee stock options	795,000	1,875,000	920,000
Proceeds from sale of common stock	28,954,000	21,500,000	16,780,000
Costs from sale of common stock	(850,000)	(1,599,000)	(561,000)
Proceeds from sale of treasury stock	—	6,000,000	—
Net cash provided by financing activities	34,928,000	26,576,000	16,787,000
Net increase in cash and cash equivalents	1,146,000	2,563,000	895,000
Cash and cash equivalents at beginning of year	11,465,000	8,902,000	8,007,000
Cash and cash equivalents at end of year	$ 12,611,000	$ 11,465,000	$ 8,902,000

	For the Years Ended December 31,		
	2008	2007	2006
Supplemental disclosure of cash flows information:			
Cash paid during period for:			
Interest	$ 180,000	$ 160,000	$ 201,000
Taxes	—	2,000	1,000
Supplemental schedule of non-cash investing and financing activities:			
Fair value of warrants allocated to additional paid in capital	$ 564,000	$ —	$ —
Final payment fee of the long-term debt	375,000		
Amount due from exercise of stock options	—	4,000	15,000

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Operations

The Company

Cytori Therapeutics, Inc., develops, manufactures and sells medical technologies to enable the practice of regenerative medicine. Our commercial activities are currently focused on reconstructive surgery in Europe and stem cell banking (cell preservation) in Japan and we are seeking to bring our products to market in the United States as well as other countries. Our product pipeline is developing potential new treatments for cardiovascular disease, orthopedic damage, gastrointestinal disorders, and pelvic health.

Our Thin Film product line will be marketed exclusively in Japan by Senko Medical Trading Co. ("Senko") following regulatory approval of the product in Japan.

We have two subsidiaries located in Japan and Italy.

Principles of Consolidation

The consolidated financial statements include our accounts and those of our subsidiaries. All significant intercompany transactions and balances have been eliminated. Management evaluates its investments on an individual basis for purposes of determining whether or not consolidation is appropriate. In instances where we do not demonstrate control through decision-making ability and/or a greater than 50% ownership interest, we account for the related investments under the cost or equity method, depending upon management's evaluation of our ability to exercise and retain significant influence over the investee. Our investment in the Olympus-Cytori, Inc. joint venture has been accounted for under the equity method of accounting (see note 3 for further details).

Certain Risks and Uncertainties

We have a limited operating history and our prospects are subject to the risks and uncertainties frequently encountered by companies in the early stages of development and commercialization, especially those companies in rapidly evolving and technologically advanced industries such as the biotech/medical device field. Our future viability largely depends on our ability to complete development of new products and receive regulatory approvals for those products. No assurance can be given that our new products will be successfully developed, regulatory approvals will be granted, or acceptance of these products will be achieved. The development of medical devices for specific therapeutic applications is subject to a number of risks, including research, regulatory and marketing risks. There can be no assurance that our development stage products will overcome these hurdles and become commercially viable and/or gain commercial acceptance.

For the years ended December 31, 2007 and 2006, we recorded bioresorbable product revenue from Medtronic of $792,000 and $1,451,000, respectively, which represented 13.1% and 18.3% of total product and development revenues, respectively. We sold substantially all of our bioresorbable spine and orthopedic surgical implant product line to Kensey Nash in May 2007. There was no bioresorbable product revenue recorded in 2008.

Liquidity and Capital Availability

We incurred losses of $30,036,000, $28,672,000 and $25,447,000 for the years ended December 31, 2008, 2007, and 2006 respectively. We have an accumulated deficit of $162,168,000 as of December 31, 2008. Additionally, we have used net cash of $33,389,000, $29,995,000 and $16,483,000 to fund our operating activities for years ended December 31, 2008, 2007, and 2006, 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 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 significantly 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 negotiations with multiple parties. Our efforts in 2008 to raise capital have taken longer than we initially anticipated. In August 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. 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, was funded on October 14, 2008. We could not access the remaining $7,500,000 under this facility as we were not able to meet certain financial prerequisites that had been established by the Lenders.

We expect to continue to utilize our cash and cash equivalents to fund operations through at least the next few 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. Although there can be no assurance given, we hope to successfully complete one or more additional financing transactions and corporate partnerships in the near-term. Without this additional capital, current working capital and cash generated from sales and containment of operating costs will not provide adequate funding for research, sales and marketing efforts, clinical and preclinical trials, and product development activities at their current levels. If such efforts are not successful, we will need to significantly reduce or curtail our research and development and other operations and this could negatively affect our ability to achieve corporate growth goals. Specifically, we have prepared an operating plan (plan) that calls for us to reduce 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 would be minimal 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 would significantly reduce administrative staff and salaries consistent with the overall reduction in scope of operations. In aggregate, such reductions could result in eliminations of roles for the majority of the Company's current staff and the deferral or elimination of all ongoing development projects until such time that cash resources were available from operations or outside sources to re-establish development and growth plans. Management is currently reviewing contractual obligations related to the pre-clinical and clinical commitments along with minimum purchase requirements to include deferral of such commitments as part of this plan. While management is actively pursuing its near term financial and strategic alternatives it is also, in parallel, continuing to evaluate the timing of implementation of the alternative operating plan and the initiation of the identified reductions.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions 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, accounting for product line dispositions, valuing our put option arrangement with Olympus Corporation (Put option) (see notes 3 and 4), 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., valuing allowance for doubtful accounts and inventories.

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 financial statements in the periods they are determined to be necessary.

Presentation

Certain prior period amounts have been reclassified to conform to current period presentation.

Cash and Cash Equivalents

We consider all highly liquid investments with maturities of three months or less at the time of purchase to be cash equivalents. Investments with original maturities of three months or less that were included with and classified as cash and cash equivalents totaled $11,718,000 and $10,502,000 as of December 31, 2008 and 2007, respectively. We maintain our cash at insured financial

institutions. The combined account balances at each institution periodically exceed FDIC insurance coverage, and as a result, there is a concentration of credit risk related to amounts in excess of FDIC limits. We believe that the risk is not significant.

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.

We evaluate our investments in accordance with the provisions of Statement of Financial Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Based on our intent, our investment policies and our ability to liquidate debt securities, we classify short-term investment securities within current assets. Available-for-sale securities are carried at fair value, with unrealized gains and losses reported as accumulated other comprehensive income (loss) within stockholders' equity. The amortized cost basis of debt securities is periodically adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included as a component of interest income or interest expense. The amortized cost basis of securities sold is based on the specific identification method and all such realized gains and losses are recorded as a component within other income (expense). We review the carrying values of our investments and write down such investments to estimated fair value by a charge to the statements of operations when the severity and duration of a decline in the value of an investment is considered to be other than temporary. The cost of securities sold or purchased is recorded on the settlement date.

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 December 31, 2008 and 2007.

Fair Value of Financial Instruments

The carrying amounts of our cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate their fair value due to the short-term nature of these balances. The carrying amounts of our current portion of long-term obligations and long-term obligations approximate fair value as the terms and rates of interest for these instruments approximate terms and market rates of interest currently available to us for similar instruments. Our option liability is already reported at its fair value based on established option pricing theory and assumptions (notes 3 and 4). Short-term investments are also reported at fair value in the financial statements.

Inventories

Inventories include the cost of material, labor, and overhead, and are stated at the lower of average cost, determined on the first-in, first-out (FIFO) method, or market. We periodically evaluate our on-hand stock and make appropriate provisions for any stock deemed excess or obsolete. Manufacturing costs resulting from lower than "normal" production levels are expensed as incurred.

Our inventory balance as of December 31, 2008 includes the cost of materials on hand as of December 31, 2008 that we purchased on or after March 1, 2008. March 1, 2008 is considered our commercialization date based on completion of final development activities associated with our Celution ® 800/CRS System products. All materials purchased prior to the commercialization date were expensed as research and development expense during the period they were purchased, of which $78,000 (with a net book value of $0) was on hand as of December 31, 2008 to be utilized in future manufacturing.

Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation expense, which includes the amortization of capitalized leasehold improvements, is provided for on a straight-line basis over the estimated useful lives of the assets, or the life of the lease, whichever is shorter, and range from three to five years. When assets are sold or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and the resulting gain or loss is included in operations. Maintenance and repairs are charged to operations as incurred.

Impairment

In accordance with SFAS No. 144, "Accounting for Impairment or Disposal of Long-Lived Assets," we assess certain of our 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. We recognized no impairment losses during any of the periods presented in these financial statements.

Goodwill and Intangibles

SFAS No. 142, "Goodwill and Other Intangible Assets," establishes financial accounting and reporting standards for acquired goodwill and other intangible assets. Under SFAS No. 142, goodwill and indefinite-lived intangible assets are not amortized but are reviewed at least annually for impairment. Separable intangible assets that have finite useful lives will continue to be amortized over their respective useful lives.

SFAS No. 142 requires that goodwill be tested for impairment on at least an annual basis or whenever events or changes in circumstances indicate that the carrying value of goodwill may not be recoverable. We completed this testing as of November 30, 2008, and concluded that no impairment existed.

In 2007, all goodwill that had been assigned to our MacroPore Biosurgery reporting unit was derecognized during our sale of substantially all of our spine and orthopedic product line to Kensey Nash (see note 5).

Intangibles, consisting of patents and core technology purchased in the acquisition of StemSource, Inc. in 2002, are being amortized on a straight-line basis over their expected lives of ten years.

The changes in the carrying amounts of other indefinite and finite-life intangible assets and goodwill for the years ended December 31, 2008 and 2007 are as follows:

	December 31, 2008		
	Regenerative Cell Technology	MacroPore Biosurgery	Total
Other intangibles, net:			
Beginning balance	$ 1,078,000	$ —	$ 1,078,000
Amortization	(221,000)	—	(221,000)
Ending balance	857,000	—	857,000
Goodwill, net:			
Beginning balance	3,922,000	—	3,922,000
Disposal of assets	—	—	—
Ending balance	3,922,000	—	3,922,000
Total goodwill and other intangibles, net	$ 4,779,000	$ —	$ 4,779,000
Cumulative amortization of other intangible assets	$ 1,359,000	$ —	$ 1,359,000

	December 31, 2007		
	Regenerative Cell Technology	MacroPore Biosurgery	Total
Other intangibles, net:			
Beginning balance	$ 1,300,000	$ —	$ 1,300,000
Amortization	(222,000)	—	(222,000)
Ending balance	1,078,000	—	1,078,000
Goodwill, net:			
Beginning balance	3,922,000	465,000	4,387,000
Disposal of assets	—	(465,000)	(465,000)
Ending balance	3,922,000	—	3,922,000
Total goodwill and other intangibles, net	$ 5,000,000	$ —	$ 5,000,000
Cumulative amortization of other intangible assets	$ 1,138,000	$ —	$ 1,138,000

As of December 31, 2008, future estimated amortization expense for these other intangible assets is expected to be as follows:

2009	222,000
2010	222,000
2011	222,000
2012	191,000
	$ 857,000

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 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. 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.

An allowance for doubtful accounts is maintained for estimated losses resulting from the inability of our customers to make required payments. This reserve is determined by analyzing specific customer accounts and applying historical loss rates to the aging of remaining accounts receivable balances. If the financial condition of our customer were to deteriorate, resulting in their inability to pay their accounts when due, additional reserves might be required.

Before the disposal of substantially all of our bioresorbable spine and orthopedic product line in May 2007, we sold our (non-Thin Film) MacroPore Biosurgery products to Medtronic, Inc. We recognized revenue on product sales to Medtronic upon shipment of ordered products to Medtronic, as title and risk of loss were transferred at that point. In May 2007, we sold to Kensey Nash our intellectual property rights and tangible assets related to our bioresorbable spine and orthopedic product line (see note 5).

License/Distribution Fees

We recognize any upfront payments received from license/distribution agreements as revenues over the period in which the customer benefits from the license/distribution agreement.

To date, we have not received any upfront license payments that are separable under EITF 00-21. Accordingly, such license revenues have been combined with other elements, such as research and development activities, for purposes of revenue recognition. For instance, we account for the license fees and milestone payments under the Distribution Agreement with Senko as a single unit of accounting. Similarly, we have attributed the upfront fees received under the arrangements with Olympus Corporation, a related party (see note 3), to a single unit of accounting comprising a license we granted to Olympus-Cytori, Inc. (the "Joint Venture"), a related party, as well as development services we agreed to perform for this entity.

In the first quarter of 2006, we granted Olympus an exclusive right to negotiate a commercialization collaboration for the use of adipose stem and regenerative cells for a specific therapeutic area outside of cardiovascular disease. In exchange for this right, we received $1,500,000 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.

In the third quarter of 2004, we entered into a Distribution Agreement with Senko. Under this agreement, we granted to Senko an exclusive license to sell and distribute certain Thin Film products in Japan and received a $1,500,000 upfront license fee from them in return for this right. We recorded the $1,500,000 received as deferred revenues in the accompanying consolidated balance sheets. 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. We are currently pursuing the required regulatory clearance in order to initiate commercialization.

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 a total of $22,000,000 from Olympus and Olympus-Cytori, Inc. during 2005 in two separate but related transactions (see note 3). Approximately $4,689,000 of this amount related to common stock that we issued, as well as two options we granted, to Olympus. Moreover, during the first quarter of 2006, we received $11,000,000 from the Joint Venture upon achieving the CE Mark on the Celution® 600. The difference between the proceeds received and the fair values of the common stock and option liability was recorded as deferred revenue, since conceptually, the excess proceeds represent a prepayment for future contributions and obligations of Cytori for the benefit of the Joint Venture (or "JV"), rather than additional equity investment in Cytori. Considering the $4,689,000 initially allocated to the common stock issued and the two options, 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. As noted above, 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.

We established the R&D milestones based upon our development obligations to the JV and the specific R&D support activities to be performed to achieve these obligations. Our R&D milestones consist of the following primary performance categories: product development, regulatory approvals, and generally associated pre-clinical and clinical trials. Within each category are milestones that take substantive effort to complete and are critical pieces of the overall progress towards completion of the next generation product, which we are obligated to support within the agreements entered into with Olympus.

To determine whether substantive effort was required to achieve the milestones, we considered the external costs, required personnel and relevant skill levels, the amount of time required to complete each milestone, and the interdependent relationships between the milestones, in that the benefits associated with the completion of one milestone generally support and contribute to the achievement of the next.

Determination of the relative values assigned to each milestone involved substantial judgment. The assignment process was based on discussions with persons responsible for the development process and the relative costs of completing each milestone.

We considered the costs of completing the milestones in allocating the portion of the "deferred revenues, related party" account balance to each milestone. Management believes that, while the costs incurred in achieving the various milestones are subject to estimation, due to the high correlation of such costs to outputs achieved, the use of external contract research organization costs and internal labor costs as the basis for the allocation process provides management the ability to accurately and reasonably estimate such costs.

Of the amounts received and deferred, we recognized development revenues of $774,000 and $5,158,000 in the years ended December 31, 2008 and 2007, respectively. All related development costs are expensed as incurred and are included in research and development expense on the statement of operations.

In the third quarter of 2004, we entered into a Distribution Agreement with Senko. Under this agreement, 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 following defined research and development milestones:

- In 2004, we received a nonrefundable payment of $1,250,000 from Senko after filing an initial regulatory application with the Japanese Ministry of Health, Labour and Welfare ("MHLW") related to the Thin Film product line. We initially recorded this payment as deferred revenues of $1,250,000.

- Upon the achievement of commercialization (i.e., regulatory approval by the MHLW), we will be entitled to an additional nonrefundable payment of $250,000.

Of the amounts received and deferred, we recognized development revenues of $10,000 and $152,000 in the years ended December 31, 2007 and 2006, respectively, representing the fair value of the completed milestones relative to the fair value of the total efforts expected to be necessary to achieve regulatory approval by the MHLW. There was no development revenue recognized during the year ended December 31, 2008. As noted above, the license and the milestone components of the Senko Distribution Agreement are accounted for as a single unit of accounting. This single element includes a $1,500,000 license fee which is potentially refundable. We have recognized, and will continue to recognize, the non-contingent fees allocated to this combined deliverable as we complete performance obligations under the Distribution Agreement with Senko. We will not recognize the potentially refundable portion of the fees until the right of refund expires. See note 6 for further details. Accordingly, we expect to recognize approximately $1,129,000 (consisting of remaining $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 commercialization is achieved. We will not recognize the potentially refundable portion of the fees ($1,500,000) until the right of refund expires.

Under our agreement with the NIH, we were reimbursed for "qualifying expenditures" related to research on adipose-derived cell therapy for myocardial infarction. To receive funds under the grant arrangement, we were 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 could accurately track and report all expenditures related solely to research on Adipose-Derived Cell Therapy for Myocardial Infarction, and (iii) file appropriate forms and follow appropriate protocols established by the NIH. When we were reimbursed for costs incurred under grant arrangements with the NIH, we recognized revenues for the lesser of:

- Qualifying costs incurred (and not previously recognized) to date, plus any allowable grant fees for which we are entitled to funding from the NIH; or

- The outputs generated to date versus the total outputs expected to be achieved under the research arrangement.

For the year ended December 31, 2006, we recognized NIH grant revenue of $310,000. Our work under this NIH agreement was completed in 2006; as a result, there were no comparable revenues or costs in 2008 and 2007.

Warranty

For the bioresorbable spine and orthopedic products, we provided a limited warranty under our agreements with our customers for products that fail to comply with product specifications. We have recorded a reserve for estimated costs we may incur under our warranty program. In May 2007, we sold to Kensey Nash our intellectual property rights and tangible assets related to our bioresorbable spine and orthopedic product line.

Beginning in March 2008, we began sales and shipments of our Celution ® 800/CRS System to the European and Asia-Pacific reconstructive surgery market. In September 2008 we completed installation of our first StemSource ® Cell Bank. We are selling medical device equipment for use with humans, which is subjected to exhaustive and highly controlled specification compliance and fitness testing and validation procedures before it can be approved for sale ensuring that the products will be free of defects.

We believe that the rigorous nature of the testing and compliance efforts serves to minimize the likelihood of defects in material or workmanship to a level substantially less than "probable", and a warranty estimate is not justified at this time. Accordingly, we did not record a warranty reserve for our Celution ® 800/CRS System and StemSource ® Cell Bank product line during the year ended December 31, 2008.

The following summarizes the movements in our warranty obligations, which is included in accounts payable and accrued expenses, at December 31, 2008, 2007 and 2006:

	As of January 1,	Additions/ (Deductions) to expenses	Claims	As of December 31,
2008:				
Warranty obligations	$ 67,000	$ (44,000)	$ —	$ 23,000
2007:				
Warranty obligations	$ 132,000	$ (65,000)	$ —	$ 67,000
2006:				
Warranty obligations	$ 155,000	$ (23,000)	$ —	$ 132,000

Research and Development

Research and development expenditures, which are charged to operations in the period incurred, include costs associated with the design, development, testing and enhancement of our products, regulatory fees, the purchase of laboratory supplies, pre-clinical and clinical studies. Included in these expenditures are salaries and benefits related to these efforts (excluding stock based compensation), which were approximately $6,189,000 in 2008.

Also included in research and development expenditures are costs incurred to support research grant reimbursement and costs incurred in connection with our development arrangements with Olympus and Senko.

Expenditures related to the Joint Venture with Olympus include costs that are necessary to support the commercialization of future generation devices based on our Celution® System platform. These development activities, which began in November 2005, include performing pre-clinical and clinical trials, seeking regulatory approval, and performing product development related to therapeutic applications for adipose stem and regenerative cells for multiple large markets. For the years ended December 31, 2008, 2007 and 2006, costs associated with the development of the device were $2,546,000, $6,293,000 and $7,286,000, respectively.

Our agreement with the NIH entitled us to qualifying expenditures of up to $950,000 for Phase I and Phase II related to research on Adipose-Derived Cell Therapy for Myocardial Infarction. We incurred $479,000 ($169,000 of which were not reimbursed) of direct expenses for the year ended December 31, 2006. There were no comparable expenditures in 2008 and 2007 as our work under the NIH agreement was completed during 2006.

Under a Distribution Agreement with Senko we are responsible for the completion of the initial regulatory application to the MHLW and commercialization of the Thin Film product line in Japan. During the years ended December 31, 2007 and 2006, we incurred $80,000 and $178,000, respectively, of expenses related to this regulatory and registration process. We did not incur any expenses related to this regulatory and registration process during the year ended December 31, 2008. We are currently pursuing the required regulatory clearance in order to initiate commercialization.

Deferred Financing Costs and Other Debt-Related Costs

Deferred financing costs are capitalized and amortized to interest expense over the term of its associated debt instrument. We evaluate the terms of the debt instruments to determine if any embedded or freestanding derivatives or conversion features exist. We allocate the aggregate proceeds of the debt between the warrants and the debt based on their relative fair values in accordance with Accounting Principle Board No. 14 (APB 14), " *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants* ." The fair value of the warrant issued to the Lenders is calculated utilizing the Black-Scholes option-pricing model. We are amortizing the resultant discount over the term of the debt through maturity date using the effective interest method. If the maturity of the debt is accelerated because of default or early debt repayment, then the amortization is accelerated.

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 was recognized against deferred tax assets.

Stock Based Compensation

Accounting Policy

On January 1, 2006, we adopted the provisions of Financial Accounting Standards Board Statement No. 123R, "Share-Based Payment" ("SFAS 123R") using the modified prospective transition method. SFAS 123R requires us to measure all share-based payment awards granted after January 1, 2006, including those with employees, at fair value. Under SFAS 123R, the fair value of stock options and other equity-based compensation must be recognized as expense in the statements of operations over the requisite service period of each award.

In addition, beginning January 1, 2006, we have recognized compensation expense under SFAS 123R for the unvested portions of outstanding share-based awards previously granted under our (a) 2004 Equity Incentive Plan and (b) 1997 Stock Option and Stock Purchase Plan, over the periods these awards continue to vest. This compensation expense is recognized based on the fair values and attribution methods that were previously disclosed in our prior period financial statements under Financial accounting Standards Board Statement No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123").

Other Comprehensive Income (Loss)

Comprehensive income (loss) is the total of net income (loss) and all other non-owner changes in equity. Other comprehensive income (loss) refers to these revenues, expenses, gains, and losses that, under generally accepted accounting principles, are included in comprehensive income (loss) but excluded from net income (loss).

During the years ended December 31, 2007 and 2006, our only element of other comprehensive income (loss) resulted from unrealized gains (losses) on available-for-sale investments, which are reflected in the consolidated statements of stockholders' equity as accumulated other comprehensive income (loss). We did not have any comparable other comprehensive income (loss) during the year ended December 31, 2008.

Segment Information

We report our financial results based on two distinct operating segments – (a) Regenerative cell technology and (b) MacroPore Biosurgery, which manufactures bioresorbable implants.

Our regenerative cell technology segment develops, manufactures and sells medical technologies to enable the practice of regenerative medicine with an initial focus on reconstructive surgery and cell banking. Our commercialization model is based on the sale of Celution® Systems and their related harvest and delivery instrumentation, and on generating recurring revenues from single-use consumable sets utilized during each patient procedure.

Our MacroPore Biosurgery unit develops Thin Film bioresorbable implants for sale in Japan through Senko Medical Trading Company ("Senko"), which has exclusive distribution rights to these products in Japan. Also, until after the second quarter of 2007, the MacroPore Biosurgery segment manufactured and distributed the HYDROSORB ^{TM} family of spine and orthopedic implants.

We measure the success of each operating segment based on operating profits and losses and, additionally, in the case of the regenerative cell technology segment, the achievement of key research objectives. In arriving at our operating results for each segment, we use the same accounting policies as those used for our consolidated company and as described throughout this note. However, segment operating results exclude allocations of company-wide general and administrative costs and changes in fair value of our option liabilities.

During the second half of 2007, we had minimal activity in the MacroPore Biosurgery operating segment as a result of sale in May 2007 to Kensey Nash of the intellectual property rights and tangible assets related to the spine and orthopedic bioresorbable implant product line. However, due to production and sales activity in the MacroPore Biosurgery operating segment prior to the sale to Kensey Nash, we have reported two operating segments through December 31, 2008.

Prior year results presented below have been developed on the same basis as the current year amounts. For all periods presented, we did not have any intersegment transactions.

The following tables provide information regarding the performance and assets of our operating segments:

	Years ended December 31,		
	2008	2007	2006
Revenues:			
Regenerative cell technology	$ 6,853,000	$ 5,247,000	$ 6,324,000
MacroPore Biosurgery	—	802,000	1,603,000
Total revenues	$ 6,853,000	$ 6,049,000	$ 7,927,000
Segment operating income (losses):			
Regenerative cell technology	(16,793,000)	$ (17,075,000)	$ (16,211,000)
MacroPore Biosurgery	(181,000)	9,000	(1,528,000)
General and administrative expenses	(11,727,000)	(14,184,000)	(12,547,000)
Changes in fair value of option liabilities	(1,060,000)	(100,000)	4,431,000
Total operating loss	$ (29,761,000)	$ (31,350,000)	$ (25,855,000)

	As of December 31,	
	2008	2007
Assets:		
Regenerative cell technology	$ 13,240,000	$ 11,591,000
MacroPore Biosurgery	—	—
Corporate assets	12,369,000	9,916,000
Total assets	$ 25,609,000	$ 21,507,000

We derived our revenues from the following products, research grants, development and service activities:

	Years ended December 31,		
	2008	2007	2006
Regenerative cell technology:			
Product revenues:			
Celution ® products	$ 4 ,528,000	$ —	$ —
Development revenues:			
Milestone revenue (Olympus)	774,000	5,158,000	5,905,000
Other (Olympus)	1,500,000	—	—
Research grant (NIH)	—	—	310,000
Regenerative cell storage services	4,000	4,000	7,000
Other	47,000	85,000	102,000
Total regenerative cell technology	6,853,000	5,247,000	6,324,000
MacroPore Biosurgery:			
Product revenues:			
Spine & orthopedic products	—	792,000	1,451,000
Development revenues	—	10,000	152,000
Total MacroPore Biosurgery	—	802,000	1,603,000
Total revenues	$ 6,853,000	$ 6,049,000	$ 7,927,000

The following table provides geographical information regarding our sales to external customers:

For the Years Ended December 31,	U.S. Revenues	Non-U.S. Revenues	Total Revenues
2008	$ 2,290,000	$ 4,563,000	$ 6,853,000
2007	$ 6,010,000	$ 39,000	$ 6,049,000
2006	$ 7,827,000	$ 100,000	$ 7,927,000

At December 31, 2008 and 2007, our long-lived assets, net of depreciation, excluding goodwill and intangibles (all of which are in the U.S.), are located in the following jurisdictions:

As of December 31,	U.S. Domiciled	Non-U.S. Domiciled	Total
2008	$ 3,197,000	$ 408,000	$ 3,605,000

2007	$ 3,932,000	$ 337,000	$ 4,269,000

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 available 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 available 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 share equivalents that would have been outstanding if potential common shares had been issued using the treasury stock method. Potential common shares were related entirely to outstanding but unexercised option awards and warrants for all periods presented.

We have excluded all potentially dilutive securities from the calculation of diluted loss per share attributable to common stockholders for the years ended December 31, 2008, 2007 and 2006, as their inclusion would be antidilutive. Potentially dilutive common shares excluded from the calculations of diluted loss per share were 9,393,574, 7,880,098 and 5,934,029 for the years ended December 31, 2008, 2007 and 2006, respectively.

Recent Accounting Pronouncements

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.

On January 1, 2008, we adopted certain provisions of SFAS No. 157, “Fair Value Measurements” (“SFAS 157”). SFAS 157 provides a single definition of fair value and a common framework for measuring fair value as well as new disclosure requirements for fair value measurements used in financial statements. SFAS 157 applies to reported balances that are required or permitted to be measured at fair value under existing pronouncements; accordingly, the standard does not require any new fair value measurements of reported balances.

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. We do not expect the adoption of the SFAS 157 for non-financial assets and liabilities to have a material impact on our consolidated financial position or results of operations.

On January 1, 2008, we also adopted SFAS No. 159, “The Fair Value Option for Financial Assets and Financial Liabilities” (“SFAS 159”), which permits companies to choose to measure many financial instruments and certain other items at fair value. However, we have not elected to measure any additional financial instruments or other items at fair value under the provisions of this standard.

In March 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force (EITF) on Issue No. 07-3, “Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities” (“EITF 07-3”). EITF 07-3 states that nonrefundable advance payments for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the goods are delivered or the related services are performed. The guidance is effective for all periods beginning after December 15, 2007, which we adopted effective January 1, 2008. The adoption of EITF 07-3 did not have a significant effect on our consolidated financial statements.

In December 2007, the FASB issued 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. We do not believe that the adoption of SFAS 160 will have a significant effect on our consolidated financial statements.

In December 2007, the FASB issued 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. We do not believe that the adoption of SFAS 141R will have a significant effect on our consolidated financial statements.

In December 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force on 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. We are currently in the process evaluating whether the adoption of EITF 07-1 will have a significant effect on our consolidated financial statements.

In October 2008, the FASB issued Staff Position "Determining the Fair Value of a Financial Asset when the Market for That Asset is not Active" (FSP No. 157-3). FSP No. 157-3 clarifies the application of SFAS 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when market for that financial asset is not active. This guidance is effective upon issuance, including prior periods for which financial statements have not been issued. The adoption of FSP No. 157-3 did not have a significant effect on our consolidated financial statements.

In June 2008, the FASB ratified the consensus on 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 provides a framework for evaluating the terms of a particular instrument to determine whether such instrument is considered a derivative financial instrument. EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and must be applied by recording a cumulative effect adjustment to the opening balance of retained earnings (or other appropriate components of equity) as of the date of adoption. We anticipate the adoption of EITF 07-5 will result is the recognition of a liability for the warrants issued in August 2008 as part of our private placement of common stock of approximately $2.9 million and a corresponding increase in stockholders' deficit as of January 1, 2009. Future changes in the fair value of the warrant liability will be recognized as a component of earnings (loss).

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. We do not expect the adoption of this FSP will have a material impact on the our financial statements.

3. Transactions with Olympus Corporation

Initial Investment by Olympus Corporation in Cytori

In 2005, we entered into a common stock purchase agreement (the "Purchase Agreement") with Olympus in which we received $11,000,000 in cash proceeds.

Under the Purchase Agreement, we issued 1,100,000 shares of common stock to Olympus. In addition, we also granted Olympus an immediately exercisable option to acquire 2,200,000 shares of our common stock at $10 per share, which expired on December 31, 2006. Before its expiration, we accounted for this option as a liability.

The $11,000,000 in total proceeds we received in the second quarter of 2005 exceeded the sum of (i) the market value of our stock as well as (ii) the fair value of the option at the time we entered into the share purchase agreement. The $7,811,000 difference between the proceeds received and the fair values of our common stock and option liability is recorded as a component of deferred revenues, related party in the accompanying balance sheet. This difference was recorded as deferred revenue since, conceptually, the excess proceeds represent a prepayment for future contributions and obligations of Cytori for the benefit of the Joint Venture (see below), rather than an additional equity investment in Cytori. The recognition of this deferred amount is based on achievement of related milestones, under a proportional performance methodology. If and such revenues are recognized, deferred revenue will be decreased (see note 2 – Revenue Recognition).

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.

In August 2006, we received an additional $11,000,000 from Olympus for the issuance of approximately 1,900,000 shares of our common stock at $5.75 per share under the shelf registration statement filed in May 2006. The purchase price was determined by our closing price on August 9, 2006.

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.

As of December 31, 2008, Olympus holds approximately 13.7% (unaudited) of our issued and outstanding shares. Additionally, Olympus has a right, which it has not yet exercised, to designate a director to serve on our Board of Directors.

Formation of the Olympus-Cytori Joint Venture

On November 4, 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.

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 regenerative cells residing in adipose 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 Celution® 600 in January 2006, we received an additional $11,000,000 development milestone payment from the Joint Venture.

We have determined that the Joint Venture is a variable interest entity ("VIE") pursuant to 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 have significant influence over the Joint Venture's operations. At December 31, 2008, the carrying value of our investment in the Joint Venture is $324,000.

We are under no obligation to provide additional funding to the Joint Venture, but may choose to do so. We contributed $300,000 and $150,000 to the Joint Venture during 2007 and 2006, respectively. The Company made no contribution during 2008.

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 November 4, 2005, the fair value of the Put was determined to be $1,500,000. At December 31, 2008 and 2007, the fair value of the Put was $2,060,000 and $1,000,000, respectively. Fluctuations in the Put value are recorded in the consolidated statements of operations as a component of change in fair value of option liabilities. The fair value of the Put has been recorded as a long-term liability in the caption option liability in our consolidated 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:

	December 31, 2008	December 31, 2007	November 4, 2005
Expected volatility of Cytori	68.00%	60.00%	63.20%
Expected volatility of the Joint Venture	68.00%	60.00%	69.10%
Bankruptcy recovery rate for Cytori	21.00%	21.00%	21.00%
Bankruptcy threshold for Cytori	$ 16,740,000	$ 9,324,000	$10,780,000
Probability of a change of control event for Cytori	2.80%	2.17%	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	2.25%	4.04%	4.66%

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 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 may sell such systems exclusively to us at a formula-based transfer price; we have retained marketing rights to the second and all subsequent generation devices for all therapeutic applications of adipose regenerative cells.

As part of the various agreements with Olympus, we will be required, following commercialization of the Joint Venture's Celution® System or Systems, to provide monthly forecasts to the Joint Venture specifying the quantities of each category of devices that we intend to purchase over a rolling six-month period. Although we are not subject to any minimum purchase requirements, we are obliged to buy a minimum percentage of the products forecasted by us in such reports. Since we can effectively control the number of devices we will agree to purchase and because no commercial devices have yet been developed to trigger the forecast requirement, we estimate that the fair value of this guarantee is de minimis as of December 31, 2008.

In August 2007 we entered into a License and Royalty Agreement with the Joint Venture. This Royalty Agreement provides us the ability 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 allows for the sale of the Cytori systems, including Celution ® 800/CRS and Celution ® 900/MB, until such time as the Joint Venture's products are commercially available, subject to a reasonable royalty that will be payable to the Joint Venture for all such sales. During the year ended December 31, 2008, in connection with our sales of our Celution ® 800/CRS System products to the European and Asia-Pacific reconstructive surgery market, we incurred approximately $157,000 in royalty cost related to our agreement with the Joint Venture. This cost is included as a component of cost of product revenues in our consolidated condensed statement of operations.

Deferred revenues, related party

As of December 31, 2008, the deferred revenues, related party account primarily consists of the consideration we have received in exchange for contributions and obligations that we have agreed to on behalf of Olympus and the Joint Venture (less any amounts that we have recognized as revenues in accordance with our revenue recognition policies set out in note 2). These contributions include product development, regulatory approvals, and generally associated pre-clinical and clinical trials to support the commercialization of the Celution® System platform. Our obligations also include maintaining the exclusive and perpetual license to our device technology, including the Celution® System platform and certain related intellectual property.

Condensed financial information for the Joint Venture

A summary of the unaudited condensed financial information for the Joint Venture as of December 31, 2008 and 2007 and for the years ended December 31, 2008, 2007, and 2006 and reconciliation from the net loss of the joint venture to Cytori's equity loss from investment in joint venture is as follows:

	December 31, 2008	December 31, 2007
	(Unaudited)	(Unaudited)
Balance Sheets		
Assets:		
Cash	$ 646,000	$ 713,000
Amounts due from related party	24,000	—
Prepaid insurance	9,000	9,000
Computer equipment and software, net	20,000	24,000
Total assets	$ 699,000	$ 746,000
Liabilities and Stockholders' Equity:		
Accrued expenses	$ 36,000	$ 27,000
Amounts due to related party	16,000	72,000
Stockholders' equity	647,000	647,000
Total liabilities and stockholders' equity	$ 699,000	$ 746,000

	Years ended December 31,		
	2008	2007	2006
Statements of Operation	(Unaudited)	(Unaudited)	(Unaudited)
Revenues:			
Royalty revenue	$ 157,000	$ —	$ —
Operating expenses:			
Research and development expense	—	—	11,000,000
General and administrative expense:			
Accounting and other corporate services	75,000	40,000	172,000
Quality system services	64,000	36,000	-
Other	24,000	10,000	2,000
Operating expenses	163,000	86,000	11,174,000
Operating loss	(6,000)	(86,000)	(11,174,000)
Other income (expense):			
Interest income	5,000	7,000	-
Net loss	$ (1,000)	$ (79,000)	$ (11,174,000)
Reconciliation to equity loss from investment in joint venture			
Net loss	$ (1,000)	$ (79,000)	$ (11,174,000)
Intercompany eliminations	88,000	(65,000)	(11,026,000)
Net loss after intercompany eliminations	(89,000)	(14,000)	(148,000)
Cytori's percentage of interest in joint venture	50%	50%	50%
Cytori's equity loss from investment in joint venture	$ (45,000)	$ (7,000)	$ (74,000)

4. Fair Value Measurements

As discussed in note 2, Fair Value of Financial Instruments, we adopted SFAS 157 on January 1, 2008. 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 December 31, 2008	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
Assets:				
Cash equivalents	$ 11,718,000	$ 11,718,000	$ —	$ —
Liabilities:				
Put option liability	$ (2,060,000)	$ —	$ —	$ (2,060,000)

We use quoted market prices to determine the fair value of our cash equivalents, which consist of money market funds and other highly liquid, exchange-traded fixed income and equity securities, and therefore these are classified in Level 1 of the fair value hierarchy.

Our put option liability (see note 3) 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	Year ended December 31, 2008	Year ended December 31, 2007
Beginning balance	$ (1,000,000)	$ (900,000)
Increase in fair value recognized in operating expenses	(1,060,000)	(100,000)
Ending balance	$ (2,060,000)	$ (1,000,000)

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 December 31, 2008.

5. Gain on Sale of Assets

Spine & Orthopedics Product Line

In May 2007, we sold to Kensey Nash our intellectual property rights and tangible assets related to our spine and orthopedic bioresorbable implant product line, a part of our MacroPore Biosurgery business. Excluded from the sale was our Japan Thin Film product line. We received $3,175,000 in cash related to the disposition. The assets comprising the spine and orthopedic product line transferred to Kensey Nash were as follows:

	Carrying Value Prior to Disposition
Inventory	$ 94,000
Other current assets	17,000
Assets held for sale	436,000
Goodwill	465,000
	$ 1,012,000

We incurred expenses of $109,000 in connection with the sale during the second quarter of 2007. As part of the disposition agreement, we were required to provide training to Kensey Nash representatives in all aspects of the manufacturing process related to the transferred spine and orthopedic product line, and to act in the capacity of a product manufacturer from the point of sale through August 2007. Because of these additional manufacturing requirements, we deferred $196,000 of the gain related to the outstanding manufacturing requirements, and we recognized $1,858,000 as a gain on sale in the statement of operations during the second quarter of 2007. These manufacturing requirements were completed in August 2007 as planned, and the associated costs were classified against the deferred balance, reducing it to zero. No further costs or adjustments relating to this product line sale were incurred subsequent to August 2007.

The revenues and expenses related to the spine and orthopedic product line transferred to Kensey Nash for the years ended December 31, 2007 and 2006 were as follows:

	Years ended December 31,	
	2007	2006
Revenues	$ 792,000	$ 1,451,000
Cost of product revenues	(422,000)	(1,634,000)
Research & development	(113,000)	(1,052,000)
Sales & marketing	(21,000)	(163,000)

6. Thin Film Japan Distribution Agreement

In the third quarter of 2004, we entered into a Distribution Agreement with Senko. 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 throughout the body.

The Distribution Agreement with Senko commences upon "commercialization." Essentially, commercialization occurs when one or more Thin Film product registrations are completed with the 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.

The Distribution Agreement also provides for us to supply certain products to Senko at fixed prices over the life of the agreement once we have received approval to market these products in Japan. In addition to the product price, Senko will also be obligated to make royalty payments to us of 5% of the sales value of any products Senko sells to its customers during the first three years post-commercialization.

At the inception of this arrangement, we received a $1,500,000 license fee which was recorded as deferred revenues in 2004. We have also received $1,250,000 in milestone payments from Senko. See "Revenue Recognition" under note 2 above for our policies with regard to the timing of when these amounts will be recognized as revenues.

As part of the Thin Film sales agreement we granted MAST a right to acquire our Thin Film-related interest in Japan. This right expired unexercised on May 31, 2007.

7. Short-term Investments

We did not have any short-term investments as of December 31, 2008 and 2007, as all our excess cash is included with cash and cash equivalents in the accompanying consolidated balance sheets.

Proceeds from sales and maturity of short term investments for the years ended December 31, 2008, 2007 and 2006 were $5,739,000, $28,007,000 and $67,137,000, respectively. Gross realized losses for such sales were approximately $1,000 for the year ended December 31, 2006. There were no gross realized losses for such sales for the years ended December 31, 2008 and 2007.

8. Composition of Certain Financial Statement Captions

Inventories, net

As of December 31, 2008 and 2007, inventories, net, were comprised of the following:

	December 31, 2008	December 31, 2007
Raw materials	$ 712,000	$ —
Work in process	347,000	—
Finished goods	1,084,000	—
	$ 2,143,000	$ —

Other Current Assets

As of December 31, 2008 and 2007, other current assets were comprised of the following:

	December 31, 2008	December 31, 2007
Prepaid insurance	$ 208,000	$ 287,000
Prepaid other	390,000	411,000
Capitalized debt issuance costs, current	252,000	—
Other receivables	313,000	66,000
	$ 1,163,000	$ 764,000

Property and Equipment, net

As of December 31, 2008 and 2007, property and equipment, net, were comprised of the following:

	December 31, 2008	December 31, 2007
Manufacturing and development equipment	$ 2,996,000	$ 2,833,000
Office and computer equipment	2,665,000	2,430,000
Leasehold improvements	3,125,000	3,124,000
	8,786,000	8,387,000
Less accumulated depreciation and amortization	(6,234,000)	(4,955,000)
	$ 2,552,000	$ 3,432,000

Accounts Payable and Accrued Expenses

As of December 31, 2008 and 2007, accounts payable and accrued expenses were comprised of the following:

	December 31, 2008	December 31, 2007
Accrued legal fees	$ 1,196,000	$ 2,749,000
Accrued R&D studies	1,110,000	1,263,000
Accounts payable	464,000	479,000
Accrued vacation	774,000	816,000
Accrued bonus	—	886,000
Accrued expenses	842,000	623,000
Deferred rent	305,000	265,000
Warranty reserve	23,000	67,000
Accrued accounting fees	302,000	131,000
Accrued payroll	72,000	70,000
	$ 5,088,000	$ 7,349,000

9. Commitments and Contingencies

We have contractual obligations to make payments on leases of office, manufacturing, and corporate housing space as follows:

Years Ending December 31,	Operating Leases
2009	1,754,000
2010	814,000
2011	85,000
2012	60,000
2013	25,000
2014	8,000
Total	$ 2,746,000

On May 24, 2005, we entered into a lease for 91,000 square feet of space located at 3020 and 3030 Callan Road, San Diego, California. The majority of our operations are located in this facility. The agreement bears monthly rent at an initial 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. Payments for our Callan Road location commenced in June 2006.

We also lease 4,027 square feet of office space located at 9-3 Otsuka 2-chome, Bunkyo-ku, Tokyo, Japan. The agreement bears rent at a rate of $4.38 per square foot, for a term of two years expiring on November 30, 2009.

Additionally, we entered into a new lease during the second quarter of 2008 for a 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.

Rent expense, which includes common area maintenance, for the years ended December 31, 2008, 2007 and 2006 was $2,015,000, $1,992,000 and $2,397,000, respectively.

We have entered into agreements with various clinical research organizations for pre-clinical and clinical development studies, which have provisions for cancellation. Under the terms of these agreements, the vendors provide a variety of services including conducting pre-clinical development research, enrolling patients, recruiting 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 was estimated based on current schedules of pre-clinical and clinical studies in progress. As of December 31, 2008, we have pre-clinical research study obligations of $563,000 (all of which are expected to be complete within a year) and clinical research study obligations of $5,839,000 ($4,000,000 of which are expected to be complete within a year). Should the timing of the pre-clinical and clinical trials change, the timing of the payment of these obligations would also change.

During 2008, we entered into a supply agreement with minimum purchase requirements clause. As of December 31, 2008, we have minimum purchase obligations of $2,125,000 ($850,000 of which are to be expected to complete 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 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.

Refer to note 10 for a discussion of our commitments and contingencies related to our interactions with the University of California.

Refer to note 3 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.

Refer to note 6 for a discussion of our commitments and contingencies related to our arrangements with Senko.

10. 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 relates to an issued patent number 6,777,231, which we refer to as the '231 Patent, and various pending applications relating to adipose-derived stem cells. In November 2002, we acquired StemSource, and the license agreement was assigned to us.

The agreement, which was amended and restated in September 2006 to better reflect our business model, calls for various periodic payments until such time as we begin commercial sales of any products utilizing the licensed technology. Upon achieving commercial sales of products or services covered by the UC license agreement, we will be required to pay variable earned royalties based on the net sales of products sold. Minimum royalty amounts will increase annually with a plateau in 2015. In addition, there are certain due diligence milestones that are required to be reached as a result of the agreement. Failure to fulfill these milestones may result in a reduction of or loss of the specific rights to which the affected milestone relates.

In connection with the amendment of the agreement in the third quarter of 2006, we agreed to issue 100,000 shares of our common stock to UC in the fourth quarter of 2006. At the time the agreement was reached, our shares were trading at $4.87 per share. The expense was charged to general and administrative expense.

Additionally, we are obligated to reimburse UC for patent prosecution and other legal costs on any patent applications contemplated by the agreement. In particular, the University of Pittsburgh filed a lawsuit in the fourth quarter of 2004, naming all of the inventors who had not assigned their ownership interest in the '231 Patent to the University of Pittsburgh. It was seeking a determination that its assignors, rather than UC's assignors, are the true inventors of the '231 Patent. This lawsuit has subjected us to and will likely continue to subject us to significant costs and expenses.

On August 9, 2007, the United States District Court, or the Court, granted the University of Pittsburgh's motion for Summary Judgment in part, determining that the University of Pittsburgh's assignors were properly named as inventors on the '231 Patent, and that all other inventorship issues shall be determined according to the facts presented at trial. The trial was concluded in January 2008 and on June 9, 2008 the Court signed its final order which we received on June 12, 2008. The Court concluded that the University of Pittsburgh's assignors were the sole inventors of the '231 Patent. The Court's decision terminated UC's rights to the '231 Patent. Upon review of the Court's findings, we believe that the Court's decision was in error. The UC assignors have agreed to appeal the decision and a Notice of Appeal was filed on July 9, 2008. If the UC assignors' appeal of the Court's decision is successful, UC's rights to the '231 Patent should be reinstated.

We are not named as a party to the lawsuit, but our president, Marc Hedrick, is one of the inventors identified on the '231 Patent and therefore is a named individual defendant. Due to our license obligations to UC relating to the '231 Patent and other UC patent applications, we have provided substantial financial and other assistance to the defense of the lawsuit. Since our current products and products under development do not practice the '231 Patent, our primary ongoing business activities and product development pipeline should not be affected by the Court's decision. Although the '231 Patent is unrelated to our current products and product pipeline, we believe that the '231 Patent and/or the other technology licensed from UC may have long term potential to be useful for future product developments, and so we have elected to support UC's legal efforts in the appeal of the Court's final order.

In the years ended December 31, 2008, 2007 and 2006, we expensed $625,000, $2,418,000 and $2,189,000, respectively, for legal fees related to this license. These expenses have been classified as general and administrative expense in the accompanying consolidated financial statements. We believe that the $896,000 accrued as of December 31, 2008 is a reasonable estimate of our liability for the unpaid expenses incurred through December 31, 2008.

11. Long-term Obligations

On October 14, 2008, we entered into a Loan and Security Agreement with General Electric Capital Corporation and Silicon Valley Bank (together, the "Lenders") pursuant to which the Lenders agreed to make term loans to the Company in the aggregate principal amount of $15,000,000, and secured by property and assets of the Company. An initial term loan of $7,500,000, less fees and expenses, funded on October 14, 2008. The term loan accrues interest at a fixed rate of 10.58% per annum and is payable over a 37-month period. At maturity of each term loan, we will also make a final payment equal to 5% ($375,000) of the term loan, and treated it as a discount to the loan. We may incur additional fees if we elect to prepay a term loan. In connection with the loan facility, on October 14, 2008, we issued to each Lender a warrant to purchase up to 89,074 shares of our common stock at an exercise price of $4.21 per share. These warrants are immediately exercisable and will expire on October 14, 2018. We could not access the remaining $7,500,000 under this facility as we were not able to meet certain financial prerequisites that had been established by the Lenders.

We allocated the aggregate proceeds of the term loan between the warrants and the debt obligations based on their relative fair values in accordance with Accounting Principle Board No. 14 (APB 14), " Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants ." The fair value of the warrant issued to the Lenders is calculated utilizing the Black-Scholes option-pricing model. We are amortizing the resultant discount of $564,000 over the term of the loan using the effective interest method, with effective interest rate being 21.28%. If the maturity of the debt is accelerated because of defaults or conversions, then the amortization is accelerated. We were in compliance with our financial and non-financial covenants as of December 31, 2008. As of December 31, 2008, unamortized balance of the aggregate debt discount is $823,000.

Additional details relating to the above term loan that is outstanding as of December 31, 2008, are presented in the following table:

Origination Date	Original Loan Amount	Interest Rate	Current Monthly Payment*	Term	Remaining Principal (Face Value)
October 2008	$ 7,500,000	10.58%	$ 71,000	37 Months	$ 7,500,000

* *Current payment is interest only (starting March 2009 monthly payment will be $263,000 which includes principal and interest)*

As of December 31, 2008, the future contractual principal payments on all of our promissory notes are as follows:

For the Years Ending December 31,	
2009	$ 2,047,000
2010	2,706,000
2011	2,747,000
Total	$ 7,500,000

Reconciliation of Face Value to Book Value

Total debt and lease obligation, including final payment fee (Face Value)	$ 7,914,000
Less: Debt Discount	(823,000)
Total:	7,091,000
Less: Current Portion	(2,047,000)
Long-Term Obligation	$ 5,044,000

Additionally, we entered into a capital lease for the printers for our main building. We recorded value of the leased printers in our property, plant, and equipment balance and accrued $39,000 in long term obligations, respectively.

Our interest expense for the years ended December 31, 2008, 2007 and 2006 (all of which related to the loan entered into October 2008 and promissory notes issued in connection with our Amended Master Security Agreement, which was fully repaid in 2008) was $420,000, $155,000 and $199,000, respectively. For the year ended December 31, 2008, interest expense is calculated using the effective interest method, therefore it is inclusive of non-cash amortization in the amount of $178,000 related to the amortization of the debt discount and capitalized loan fees.

12. Income Taxes

Due to our net loss position for the years ended December 31, 2008, 2007 and 2006, and since we have recorded a full valuation allowance against deferred tax assets, there was no provision or benefit for income taxes recorded. There were no components of current or deferred federal or state income tax provisions for the years ended December 31, 2008, 2007, and 2006.

A reconciliation of the total income tax provision tax rate to the statutory federal income tax rate of 34% for the years ended December 31, 2008, 2007 and 2006 is as follows:

	2008	2007	2006
Income tax expense (benefit) at federal statutory rate	(34.00)%	(34.00)%	(34.00)%
Stock based compensation	0.56%	0.92%	0.99%
Credits	(1.67)%	(4.87)%	(2.72)%
Change in federal valuation allowance	38.38%	41.62%	34.52%
Equity loss on investment in Joint Venture	0.06%	0.01%	0.12%
Other, net	(3.33)%	(3.68)%	1.09%
	0.00%	0.00%	0.00%

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of December 31, 2008 and 2007 are as follows:

	2008	2007
Deferred tax assets:		
Allowances and reserves	$ 84,000	$ 55,000
Accrued expenses	452,000	582,000
Deferred revenue and gain on sale of assets	4,950,000	5,910,000
Stock based compensation	2,965,000	2,528,000
Net operating loss carryforwards	48,265,000	37,704,000
Income tax credit carryforwards	4,665,000	4,140,000
Capitalized assets and other	371,000	284,000
Property and equipment, principally due to differences in depreciation	549,000	—
	62,301,000	51,203,000
Valuation allowance	(61,965,000)	(50,435,000)
Total deferred tax assets, net of allowance	336,000	768,000
Deferred tax liabilities:		
Property and equipment, principally due to differences in depreciation	—	(338,000)
Intangibles	(336,000)	(430,000)
Other	—	—
Total deferred tax liability	(336,000)	(768,000)
Net deferred tax assets (liability)	$ —	$ —

We have established a valuation allowance against our net deferred tax asset due to the uncertainty surrounding the realization of such assets. Management periodically evaluates the recoverability of the deferred tax asset. At such time as it is determined that it is more likely than not that deferred assets are realizable, the valuation allowance will be reduced. We have recorded a valuation allowance of $61,965,000 as of December 31, 2008 to reflect the estimated amount of deferred tax assets that may not be realized. We increased our valuation allowance by approximately $11,529,000 for the year ended December 31, 2008. The valuation allowance includes approximately $579,000 related to stock option deductions, the benefit of which will be credited to equity if ever utilized.

At December 31, 2008, we had federal and state tax net operating loss carryforwards of approximately $117,177,000 and $98,679,000, respectively. The federal and state net operating loss carryforwards begin to expire in 2019 and 2011, respectively, if unused. At December 31, 2008, we had federal and state tax credit carryforwards of approximately $3,364,000 and $3,043,000, respectively. The federal credits will begin to expire in 2017, if unused, and $160,000 of the state credits will begin to expire in 2009 if unused. The remaining state credits carry forward indefinitely. In addition, we had a foreign tax loss carryforward of $4,142,000 and $93,000 in Japan and Italy, respectively.

The Internal Revenue Code limits the future availability of net operating loss and tax credit carryforwards that arose prior to certain cumulative changes in a corporation’s ownership resulting in a change of our control. Due to prior ownership changes as defined in IRC Section 382, a portion of the net operating loss and tax credit carryforwards are limited in their annual utilization. In September 1999, we experienced an ownership change for purposes of the IRC Section 382 limitation. As of December 31, 2007, these pre-change net operating losses and credits are fully available.

Additionally, in 2002 when we purchased StemSource, we acquired federal and state net operating loss carryforwards of approximately

$2,700,000 and $2,700,000, respectively. This event triggered an ownership change for purposes of IRC Section 382. It is estimated that the pre-change net operating losses and credits will be fully available by 2008.

We have completed an update to our IRC Section 382 study analysis through April 17, 2007. We have not had any additional ownership changes based on this study.

As a result of the adoption of SFAS 123R, we recognize windfall tax benefits associated with the exercise of stock options directly to stockholders' equity only when realized. Accordingly, deferred tax assets are not recognized for net operating loss carryforwards resulting from windfall tax benefits occurring from January 1, 2006 onward. At December 31, 2008, deferred tax assets do not include $1,193,000 of excess tax benefits from stock-based compensation.

We adopted FIN 48 on January 1, 2007. There were no unrecognized tax benefits as of the date of adoption.

Following is a tabular reconciliation of the unrecognized tax benefits activity during 2008:

Unrecognized Tax Benefits – December 31, 2007	$	716,000
Gross increases – tax positions in prior period		—
Gross decreases – tax positions in prior period		—
Gross increase – current-period tax positions		236,000
Settlements		—
Lapse of statute of limitations		—
Unrecognized Tax Benefits – December 31, 2008	$	952,000

None of the amount included in the FIN 48 liability if recognized would affect the Company's effective tax rate, since it would be offset by an equal reduction in the deferred tax asset valuation allowance. The Company's deferred tax assets are fully reserved.

The Company did not recognize interest related to unrecognized tax benefits in interest expense and penalties in operating expenses as of December 31, 2008.

The Company's material tax jurisdictions are United States and California. The Company is currently not under examination by the Internal Revenue Service or any other taxing authority.

The Company's tax years for 1999 and forward can be subject to examination by the United States and California tax authorities due to the carryforward of net operating losses and research development credits.

The Company does not foresee material changes to its gross FIN 48 liability within the next twelve months.

13. Employee Benefit Plan

We implemented a 401(k) retirement savings and profit sharing plan (the "Plan") effective January 1, 1999. We may make discretionary annual contributions to the Plan, which is allocated to the profit sharing accounts based on the number of years of employee service and compensation. At the sole discretion of the Board of Directors, we may also match the participants' contributions to the Plan. We made no discretionary or matching contributions to the Plan in 2008, 2007 and 2006.

14. Stockholders' Deficit

Preferred Stock

We have authorized 5,000,000 shares of $.001 par value preferred stock, with no shares outstanding as of December 31, 2008 and 2007. Our Board of Directors is authorized to designate the terms and conditions of any preferred stock we issue without further action by the common stockholders.

Common Stock

In February 2007, we completed a registered direct public offering of units consisting of common stock and warrants. We received net proceeds of $19,901,000 from the sale of units consisting of 3,746,000 shares of common stock and 1,873,000 common stock warrants (with an exercise price of $6.25 per share and a five-year exercisability period) under our shelf registration statement.

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 December 31, 2008, Green Hospital Supply, Inc., a related party, holds approximately 10.2% (unaudited) 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.

We have accounted for the warrants as permanent equity, 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.

In June 2008, the FASB ratified the consensus on 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 provides a framework for evaluating the terms of a particular instrument to determine whether such instrument is considered a derivative financial instrument. EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and must be applied by recording a cumulative effect adjustment to the opening balance of retained earnings (or other appropriate components of equity) as of the date of adoption. We anticipate the adoption of EITF 07-5 will result is the recognition of a liability for the warrants issued in August 2008 as part of our private placement of common stock of approximately $2.9 million and a corresponding increase in stockholders' deficit as of January 1, 2009. Future changes in the fair value of the warrant liability will be recognized as a component of earnings (loss).

Warrant Adjustments

Our issuance of warrants with an exercise price of $4.21 per share to the Lenders, 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, the common stock warrants issued on August 11, 2008, are currently exercisable for 1,413,896 shares of our common stock at an exercise price of $8.49 per share.

Treasury Stock

On August 11, 2003, the Board of Directors authorized the repurchase of up to 3,000,000 shares of our common stock in the open market, from time to time until August 10, 2004 at a purchase price per share not to exceed €15.00, based on the exchange rate in effect on August 11, 2003. During 2003, we repurchased 614,099 shares of our Common Stock at an average cost of $3.69 per share for a total of $2,266,000.

In 2003, we sold 150,500 shares of treasury stock for $542,000 at an average price of $3.60 per share. The basis of the treasury stock sold was the weighted average purchase price or $3.67 per share with the difference of $10,000 accounted for as a reduction to additional paid-in capital.

On December 6, 2003, we exchanged 1,447,755 shares of common stock (all listed on the Frankfurt Stock Exchange) held in our treasury for 1,447,755 of our unlisted outstanding common stock issued to former StemSource shareholders. $104,000 was accounted for as a charge against additional paid-in capital relating to the difference between the weighted average purchase price and fair market value of the listed shares held in treasury at the time of the exchange.

In 2004, we repurchased 27,650 shares of our common stock for $76,000 on the open market at a price of $2.75 per share. Additionally in 2004, we repurchased 262,602 shares of our common stock for $976,000 from a former director and officer of StemSource at a price of $3.72 per share.

Our repurchase program expired on August 10, 2004. We have no plans to initiate a new repurchase program at this time.

In April 2007, we sold 1,000,000 shares of unregistered common stock from our treasury to Green Hospital Supply, Inc. for $6,000,000 cash, or $6.00 per share. The basis of the treasury stock sold was the weighted average purchase price, or $3.62 per share, and the difference of $2.38 per share, or $2,380,000, was accounted for as an increase to additional paid-in capital.

15. Stockholders Rights Plan

On May 28, 2003, the Board of Directors declared a dividend distribution of one preferred share purchase right (a "Right") for each outstanding share of our common stock. The dividend is payable to the stockholders of record on June 10, 2003, and with respect to shares of common stock issued thereafter until the Distribution Date (as defined below) and, in certain circumstances, with respect to shares of common stock issued after the Distribution Date. Except as set forth below, each Right, when it becomes exercisable, entitles the registered holder to purchase from us one one-thousandth (1/1000th) of a share of our Series RP Preferred

Stock, $0.001 par value per share (the "Preferred Stock"), at a price of $25.00 per one one-thousandth (1/1000th) of a share of Preferred Stock, subject to adjustment. Each share of the Preferred Stock would entitle the holder to our common stock with a value of twice that paid for the Preferred Stock. The description and terms of the Rights are set forth in a Rights Agreement (the "Rights Agreement") between us and Computershare Trust Company, Inc., as Rights Agent, dated as of May 29, 2003, and as amended on May 12, 2005 and August 28, 2007.

The Rights attach to all certificates representing shares of our common stock outstanding, and are evidenced by a legend on each share certificate, incorporating the Rights Agreement by reference. The Rights trade with and only with the associated shares of our common stock and have no impact on the way in which holders can trade our shares. Unless the Rights Agreement was to be triggered, it would have no effect on the Company's consolidated balance sheet or income statement and should have no tax effect on the Company or its stockholders. The Rights Agreement is triggered upon the earlier to occur of (i) a person or group of affiliated or associated persons having acquired, without the prior approval of the Board, beneficial ownership of 15% or more of the outstanding shares of our common stock or (ii) 10 days, or such later date as the Board may determine, following the commencement of or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in a person or group of affiliated or associated persons becoming an Acquiring Person (as defined in the Rights Agreement) except in certain circumstances (the "Distribution Date"). The Rights are not exercisable until the Distribution Date and will expire at the close of business on May 29, 2013, unless we redeem them earlier.

16. Stock-based Compensation

During 2004, we adopted the 2004 Equity Incentive Plan (the "2004 Plan"), which provides our employees, directors and consultants the opportunity to purchase our common stock through non-qualified stock options, stock appreciation rights, restricted stock units, or restricted stock and cash awards. The 2004 Plan initially provides for issuance of 3,000,000 shares of our common stock, which number may be cumulatively increased (subject to Board discretion) on an annual basis beginning January 1, 2005, which annual increase shall not exceed 2% of our then outstanding stock. As of December 31, 2008, there are 2,190,450 securities remaining and available for future issuances under 2004 Plan, which is exclusive of securities to be issued upon an exercise of outstanding options, warrants, and rights.

During 1997, we adopted the 1997 Stock Option and Stock Purchase Plan (the "1997 Plan"), which provides for the direct award or sale of shares and for the grant of incentive stock options ("ISOs") and non-statutory options to employees, directors or consultants. The 1997 Plan, as amended, provides for the issuance of up to 7,000,000 shares of our common stock. The exercise price of ISOs cannot be less than the fair market value of the underlying shares on the date of grant. ISOs can be granted only to employees. The 1997 Plan expired on October 22, 2007.

Generally, awards issued under the 2004 Plan or the 1997 Plan are subject to four-year vesting, and have a contractual term of 10 years. Most awards contain one of the following two vesting provisions:

- 12/48 of a granted award will vest after one year of service, while an additional 1/48 of the award will vest at the end of each month thereafter for 36 months, or
- 1/48 of the award will vest at the end of each month over a four-year period.

A summary of activity for the year ended December 31, 2008 is as follows:

	Options	Weighted Average Exercise Price
Balance as of January 1, 2008	6,007,275	$ 4.85
Granted	534,250	$ 5.21
Exercised	(388,536)	$ 2.04
Expired	(146,777)	$ 6.50
Cancelled/forfeited	(77,505)	$ 5.68
Balance as of December 31, 2008	5,928,707	$ 5.02

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Balance as of December 31, 2008	5,928,707	$ 5.02	5.34	$ 936,815
Vested and expected to vest at December 31, 2008	5,825,490	$ 5.00	5.29	$ 933,678
Vested and exercisable at December 31, 2008	4,775,056	$ 4.85	4.62	$ 901,759

The following table summarizes information about options outstanding as of December 31, 2008:

	Options Outstanding			Options Exercisable	
Range of Exercise Price	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Number of Shares	Weighted Average Exercise Price
Less than $2.00	32,218	$ 0.72	0.5	32,218	$ 0.72
$ 2.00 – 3.99	1,538,168	$ 3.06	3.7	1,488,784	$ 3.07
$ 4.00 – 5.99	2,759,822	$ 4.76	6.4	1,989,179	$ 4.56
$ 6.00 – 7.99	1,265,332	$ 6.84	5.1	1,013,064	$ 6.89
$ 8.00 – 9.99	256,167	$ 8.67	6.9	174,811	$ 8.68
More than $10.00	77,000	$ 13.18	1.2	77,000	$ 13.18
	5,928,707			4,775,056	

The total intrinsic value of stock options exercised was $1,849,000, $1,758,000, and $1,913,000 for the years ended December 31, 2008, 2007 and 2006, respectively.

The fair value of each option awarded during the year ended December 31, 2008, 2007, and 2006 was estimated on the date of grant using the Black-Scholes-Merton option valuation model based on the following weighted-average assumptions:

	Years ended December 31,		
	2008	2007	2006
Expected term	5 years	6 years	6 years
Risk-free interest rate	2.83%	4.59%	4.50%
Volatility	59.62%	74.61%	78.61%
Dividends	—	—	—
Resulting weighted average grant date fair value	$ 2.77	$ 3.74	$ 5.26

Through December 31, 2007, the expected term assumption was estimated using the “simplified method,” as described in Staff Accounting Bulletin No. 107, “Share-Based Payment” (“SAB 107”). This method estimates the expected term of an option based on the average of the vesting period and the contractual term of an option award. Starting January 1, 2008, following the guidance of Staff Accounting Bulletin No. 110, “Share-Based Payment” we calculated the expected term of our stock options based on our historical data. The expected term is calculated for and applied to all employee awards as a single group as we do not expect (nor does historical data suggest) substantially different exercise or post-vesting termination behavior amongst our employee population. The fair value of each option awarded during the year ended December 31, 2008 was estimated assuming an expected term of 5.0 years.

We estimate volatility based on the historical volatility of our daily stock price over the period preceding grant date commensurate with the expected term of the option.

The weighted average risk-free interest rate represents the interest rate for treasury constant maturity instruments published by the Federal Reserve Board. If the term of available treasury constant maturity instruments is not equal to the expected term of an

employee option, we use the weighted average of the two Federal Reserve securities closest to the expected term of the employee option.

The dividend yield has been assumed to be zero as we (a) have never declared or paid any dividends and (b) do not currently anticipate paying any cash dividends on our outstanding shares of common stock in the foreseeable future.

The following summarizes the total compensation cost recognized in the accompanying financial statements:

	Years ended December 31,		
	2008	2007	2006
Total compensation cost for share-based payment arrangements recognized in the statement of operations (net of tax of $0)	$ 2,257,000	$ 2,310,000	$ 3,220,000

As of December 31, 2008, the total compensation cost related to non-vested stock options not yet recognized for all of our plans is approximately $3,494,000. These costs are expected to be recognized over a weighted average period of 1.67 years.

In calculating the fair value of option awards granted after January 1, 2006, we generally used the same methodologies and assumptions employed prior to our adoption of SFAS 123R. For instance, our estimate of expected volatility is based exclusively on our historical volatility, since we have granted options that vest purely based on the passage of time and otherwise meet the criteria to exclusively rely on historical volatility, as set out in SAB 107. We did, however, change our policy of attributing the cost of share-based payment awards granted after January 1, 2006 from the "graded vesting approach" to the "straight-line" method. We believe that this change more accurately reflects the manner in which our employees vest in an option award.

Cash received from stock option and warrant exercises for the years ended December 31, 2008, 2007 and 2006 was approximately $795,000, $1,875,000, and $920,000, respectively. SFAS 123R requires that cash flows resulting from tax deductions in excess of the cumulative compensation cost recognized for options exercised (excess tax benefits) be classified as cash inflows provided by financing activities and cash outflows used in operating activities. No income tax benefits have been recorded related to the stock option exercises. SFAS 123R prohibits recognition of tax benefits for exercised stock options until such benefits are realized. As we presently have tax loss carryforwards from prior periods and expect to incur tax losses in 2008, we are not able to benefit from the deduction for exercised stock options in the current reporting period.

In November 2005, the FASB issued Staff Position (FSP) No. FAS 123(R)-3, "Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards" (FSP 123R-3). We have elected to adopt the alternative transition method provided in the FSP 123R-3 for calculating the tax effects of stock-based compensation pursuant to SFAS 123R. The alternative transition method includes simplified methods to establish the beginning balance of the APIC pool related to the tax effects of employee stock-based compensation, and to determine the subsequent impact on the APIC pool and Consolidated Statements of Cash Flows of the tax effects of employee stock-based compensation awards that are outstanding upon adoption of SFAS 123R.

To settle stock option awards that will be exercised, we will issue new shares of our common stock. At December 31, 2008, we have an aggregate of 64,104,526 shares authorized and available to satisfy option exercises under our plans.

Cash used to settle equity instruments granted under share-based payment arrangements amounted to $0 in all periods presented.

Award Modifications

On August 2, 2007, our Senior Vice President – Research - Regenerative Cell Technology ("VP") terminated employment with us. We paid the former VP a lump sum cash severance payment of $66,667 and extended the exercise period of his 35,000 vested stock options through December 31, 2007. In addition to the cash severance payment, we recorded stock based compensation expense of $5,741 in the third quarter of 2007, which reflects the incremental fair value of the extended vested stock options (over the fair value of the original awards at the modification date).

In connection with the sale of our HYDROSORB™ spine and orthopedics surgical implant product line, we eliminated the positions of two less senior employees on August 31, 2007. At the time these positions were eliminated, we (a) accelerated the vesting of 2,084 unvested stock options held by these two employees, and (b) extended the exercise period of 37,292 vested stock options owned by them through December 31, 2008. 16,041 unvested stock options held by these two employees were forfeited.

In connection with the above modifications and in accordance with SFAS 123R, we recorded additional stock based compensation expense of $58,402 in the year ended December 31, 2007, as a component of general and administrative. This charge constitutes the entire expense related to the modification of these options, and no future period charges will be required.

Marshall G. Cox retired from our board of directors (and his employment by the Company thereby ceased) on May 3, 2007. We subsequently entered into a consulting agreement with Mr. Cox whereby he will continue to provide services to the Company through March 1, 2009. Subject to his continued service to the Company, all of Mr. Cox's outstanding stock options previously granted to him in his capacity as a director will continue to vest and be exercisable, in accordance with their original terms. As of May 3, 2007, Mr. Cox held a total of 91,250 unvested stock options. After May 3, 2007, the fair value of Mr. Cox's unvested stock options will be remeasured each reporting period until they fully vest. There was no additional stock based compensation expense recorded as a result of the modification of Mr. Cox's options.

In May 2006, our Senior Vice President of Finance and Administration, Treasurer, and Principal Accounting Officer terminated full-time employment with us. In connection with his full-time employment termination, we extended the exercise period of his 204,997 vested stock options as of May 31, 2006 to December 31, 2007. Moreover, we entered into a part-time employment agreement with him according to which all stock option vesting ceased as of May 31, 2006, resulting in the cancellation of 75,003 non-vested stock options on May 31, 2006.

In connection with a broader reduction in force, we eliminated the positions of our Senior Vice President, Business Development, and Vice President, Marketing & Development, on July 25, 2006. We subsequently entered into short-term employment agreements with the individuals formerly holding these positions. These individuals continued to provide service to us following the elimination of their former positions on July 25, 2006. At the time these positions were eliminated, 142,686 non-vested stock options held by these two employees were forfeited. Moreover, subject to certain restrictions, we extended the exercise period for 328,564 vested stock options held by these employees to December 31, 2007.

We also eliminated the position of a less senior employee on July 31, 2006. Simultaneously, we continued the individual's employment in a new capacity; however, we cancelled 8,125 non-vested stock options held by this individual on July 31, 2006.

In connection with the above modifications and in accordance with SFAS 123R, we recorded additional expense of $567,000 in the year ended December 31, 2006, as components of research and development, general and administrative and sales and marketing expense. This charge constitutes the entire expense related to these options, and no future period charges will be required.

Non-Employee Stock Based Compensation

In the fourth quarter of 2007, we granted an option to purchase 22,500 shares of our common stock to a non-employee scientific advisor. The stock option has a contractual term of 10 years and 7,500 shares vested on May 31, 2008, with two remaining tranches of 7,500 shares each to vest on May 31, 2009 and 2010, subject to the individual's continued service to the Company. This scientific advisor will also be receiving cash consideration as services are performed. We will remeasure the fair value of this advisor's unvested stock options each reporting period until they fully vest, and the resulting stock based compensation expense will be recorded as a component of research and development expenses.

17. Related Party Transactions

Refer to note 3 for a discussion of related party transactions with Olympus and note 14 for a discussion of related party transactions with Green Hospital Supply, Inc.

18. Quarterly Information (unaudited)

The following unaudited quarterly financial information includes, in management's opinion, all the normal and recurring adjustments necessary to fairly state the results of operations and related information for the periods presented.

	For the three months ended			
	March 31, 2008	June 30, 2008	September 30, 2008	December 31, 2008
Product revenues	$ 153,000	$ 1,404,000	$ 2,319,000	$ 652,000
Gross profit	93,000	729,000	1,671,000	181,000
Development revenues	811,000	12,000	1,000	1,501,000
Operating expenses	9,232,000	9,113,000	8,481,000	7,934,000
Other income	55,000	(41,000)	(8,000)	(281,000)
Net loss	$ (8,273,000)	$ (8,413,000)	$ (6,817,000)	$ (6,533,000)
Basic and diluted net loss per share	$ (0.34)	$ (0.33)	$ (0.24)	$ (0.22)

	For the three months ended			
	March 31, 2007	June 30, 2007	September 30, 2007	December 31, 2007
Product revenues	$ 280,000	$ 512,000	$ —	$ —
Gross profit	55,000	315,000	—	—
Development revenues	45,000	1,814,000	3,373,000	25,000
Operating expenses	8,908,000	8,245,000	8,983,000	10,841,000
Other income	139,000	2,120,000	282,000	137,000
Net loss	$ (8,669,000)	$ (3,996,000)	$ (5,328,000)	$ (10,679,000)
Basic and diluted net loss per share	$ (0.43)	$ (0.17)	$ (0.22)	$ (0.44)

Item 9 . Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A . 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 Annual Report of Form 10-K. 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 December 31, 2008.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we have conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with

the policies or procedures may deteriorate. Based on our evaluation under the framework in Internal Control - Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2008.

The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the quarter ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B . Other Information

None.

PART III

Item 10 . Directors, Executive Officers and Corporate Governance

The information called for by Item 10 is incorporated herein by reference to the material under the captions “Election of Directors” and “Directors, Executive Officers and Corporate Governance” in our proxy statement for our 2009 annual stockholders’ meeting, which will be filed with the SEC on or before April 30, 2009.

Item 11 . Executive Compensation

The information called for by Item 11 is incorporated herein by reference to the material under the caption “Executive Compensation” in our proxy statement for our 2009 annual stockholders’ meeting, which will be filed with the SEC on or before April 30, 2009.

Item 12 . Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by Item 12 is incorporated herein by reference to the material under the caption “Security Ownership of Certain Beneficial Owners and Management” in our proxy statement for our 2009 annual stockholders’ meeting, which will be filed with the SEC on or before April 30, 2009.

Item 13 . Certain Relationships and Related Transactions, and Director Independence

The information called for by Item 13 is incorporated herein by reference to the material under the caption “Information Concerning Directors and Executive Officers- Certain Relationships and Related Transactions” in our proxy statement for our 2009 annual stockholders’ meeting, which will be filed with the SEC on or before April 30, 2009.

Item 14 . Principal Accountant Fees and Services

The information called for by Item 14 is incorporated herein by reference to the material under the caption “Principal Accountant Fees and Services” in our proxy statement for our 2009 annual stockholders meeting, which will be filed with the SEC on or before April 30, 2009.

PART IV

Item 15 . Exhibits, Financial Statement Schedules

(a) (1) Financial Statements

Reports of KPMG LLP, Independent Registered Public Accounting Firm

Consolidated Balance Sheets as of December 31, 2008 and 2007

Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2008, 2007 and 2006

Consolidated Statements of Stockholders' Equity (Deficit) for the years ended December 31, 2008, 2007 and 2006

Consolidated Statements of Cash Flows for the years ended December 31, 2008, 2007 and 2006

Notes to Consolidated Financial Statements

(a) (2) Financial Statement Schedules

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

For the years ended December 31, 2008, 2007 and 2006
(in thousands of dollars)

	Balance at beginning of year	Additions/ (Reductions) ((charges)/ credits to expense)	Charged to Other Accounts	Deductions	Balance at end of year
Allowance for doubtful accounts					
Year ended December 31, 2008	$ 1	$ 121	$ —	$ —	$ 122
Year ended December 31, 2007	$ 2	$ 1	$ —	$ (2)	$ 1
Year ended December 31, 2006	$ 9	$ —	$ —	$ (7)	$ 2

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(a) (3) Exhibits

Exhibit Number	Description
2.5	Asset Purchase Agreement dated May 30, 2007, by and between Cytori Therapeutics, Inc. and MacroPore Acquisition Sub, Inc (filed as Exhibit 2.5 to our Form 10-Q Quarterly Report as filed on August 14, 2007 and incorporated by reference herein)
3.1	Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to our Form 10-Q Quarterly Report as filed on August 13, 2002 and incorporated by reference herein)
3.2	Amended and Restated Bylaws of Cytori Therapeutics, Inc. (filed as Exhibit 3.2 to our Form 10-Q Quarterly Report, as filed on August 14, 2003 and incorporated by reference herein)
3.3	Certificate of Ownership and Merger (effecting name change to Cytori Therapeutics, Inc.) (filed as Exhibit 3.1.1 to our Form 10-Q, as filed on November 14, 2005 and incorporated by reference herein)
4.1	Rights Agreement, dated as of May 19, 2003, between Cytori Therapeutics, Inc. and Computershare Trust Company, Inc. as Rights Agent, which includes: as Exhibit A thereto, the Form of Certificate of Designation, Preferences and Rights of Series RP Preferred Stock of Cytori Therapeutics, Inc.; as Exhibit B thereto, the Form of Right Certificate; and, as Exhibit C thereto, the Summary of Rights to Purchase Series RP Preferred Stock (filed as Exhibit 4.1 to our Form 8-A which was filed on May 30, 2003 and incorporated by reference herein)
4.1.1	Amendment No. 1 to Rights Agreement dated as of May 12, 2005, between Cytori Therapeutics, Inc. and Computershare Trust Company, Inc. as Rights Agent (filed as Exhibit 4.1.1 to our Form 8-K, which was filed on May 18, 2005 and incorporated by reference herein).
4.1.2	Amendment No. 2 to Rights Agreement, dated as of August 28, 2007, between us and Computershare Trust Company, N.A. (as successor to Computershare Trust Company, Inc.), as Rights Agent (filed as Exhibit 4.1.1 to our Form 8-K, which was filed on September 4, 2007 and incorporated by reference herein).
10.1#	Amended and Restated 1997 Stock Option and Stock Purchase Plan (filed as Exhibit 10.1 to our Form 10 registration statement, as amended, as filed on March 30, 2001 and incorporated by reference herein)
10.1.1#	Board of Directors resolution adopted November 9, 2006 regarding determination of fair market value for stock option grant purposes (incorporated by reference to Exhibit 10.10.1 filed as exhibit 10.10.1 to our Form 10-K Annual Report, as filed on March 30, 2007 and incorporated by reference herein)
10.2+	Development and Supply Agreement, made and entered into as of January 5, 2000, by and between the Company and Medtronic (filed as Exhibit 10.4 to our Form 10 registration statement, as amended, as filed on June 1, 2001 and incorporated by reference herein)
10.3+	Amendment No. 1 to Development and Supply Agreement, effective as of December 22, 2000, by and between the Company and Medtronic (filed as Exhibit 10.5 to our Form 10 registration statement, as amended, as filed on June 1, 2001 and incorporated by reference herein)
10.4+	License Agreement, effective as of October 8, 2002, by and between the Company and Medtronic PS Medical, Inc. (filed as Exhibit 2.2 to our Current Report on Form 8-K which was filed on October 23, 2002 and incorporated by reference herein)
10.5+	Amendment No. 2 to Development and Supply Agreement, effective as of September 30, 2002, by and between the Company and Medtronic, Inc. (filed as Exhibit 2.4 to our Current Report on Form 8-K which was filed on October 23, 2002 and incorporated by reference herein)
10.7	Amended Master Security Agreement between the Company and General Electric Corporation, September, 2003 (filed as Exhibit 10.1 to our Form 10-Q Quarterly Report, as filed on November 12, 2003 and incorporated by reference herein)
10.8#	Asset Purchase Agreement dated May 7, 2004 between Cytori Therapeutics, Inc. and MAST Biosurgery AG (filed as Exhibit 2.1 to our Form 8-K Current Report, as filed on May 28, 2004 and incorporated by reference herein.)
10.8.1	Settlement Agreement dated August 9, 2005, between MAST Biosurgery AG, MAST Biosurgery, Inc. and the Company (filed as Exhibit 10.26 to our Form 10-Q, which was filed on November 14, 2005 and incorporated by reference herein)
10.9#	Offer Letter for the Position of Chief Financial Officer dated June 2, 2004 between the Company and Mark Saad (filed as Exhibit 10.18 to our Form 10-Q Quarterly Report, as filed on August 16, 2004 and incorporated by reference herein)

10.10#	2004 Equity Incentive Plan of Cytori Therapeutics, Inc. (filed as Exhibit 10.1 to our Form 8-K Current Report, as filed on August 27, 2004 and incorporated by reference herein)
10.10.1#	Board of Directors resolution adopted November 9, 2006 regarding determination of fair market value for stock option grant purposes (filed as Exhibit 10.10.1 to our Form 10-K Annual Report, as filed on March 30, 2007 and incorporated by reference herein)
10.11	Exclusive Distribution Agreement, effective July 16, 2004 by and between the Company and Senko Medical Trading Co. (filed as Exhibit 10.25 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.12#	Notice and Agreement for Stock Options Grant Pursuant to Cytori Therapeutics, Inc. 1997 Stock Option and Stock Purchase Plan; (Nonstatutory) (filed as Exhibit 10.19 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.13#	Notice and Agreement for Stock Options Grant Pursuant to Cytori Therapeutics, Inc. 1997 Stock Option and Stock Purchase Plan; (Nonstatutory) with Cliff (filed as Exhibit 10.20 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.14#	Notice and Agreement for Stock Options Grant Pursuant to Cytori Therapeutics, Inc. 1997 Stock Option and Stock Purchase Plan; (Incentive) (filed as Exhibit 10.21 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.15#	Notice and Agreement for Stock Options Grant Pursuant to Cytori Therapeutics, Inc. 1997 Stock Option and Stock Purchase Plan; (Incentive) with Cliff (filed as Exhibit 10.22 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.16#	Form of Options Exercise and Stock Purchase Agreement Relating to the 2004 Equity Incentive Plan (filed as Exhibit 10.23 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.17#	Form of Notice of Stock Options Grant Relating to the 2004 Equity Incentive Plan (filed as Exhibit 10.24 to our Form 10-Q Quarterly Report, as filed on November 15, 2004 and incorporated by reference herein)
10.18#	Separation Agreement and General Release dated July 15, 2005, between John K. Fraser and the Company (filed as Exhibit 10.25 to our Form 10-Q Quarterly Report as filed on November 14, 2005 and incorporated by reference herein)
10.19#	Consulting Agreement dated July 15, 2005, between John K. Fraser and the Company (filed as Exhibit 10.28 to our Form 10-Q Quarterly Report as filed on November 14, 2005 and incorporated by reference herein)
10.20	Agreement Between Owner and Contractor dated October 10, 2005, between Rudolph and Sletten, Inc. and the Company (filed as Exhibit 10.20 to our Form 10-K Annual Report as filed on March 30, 2006 and incorporated by reference herein)
10.21#	Severance Agreement and General Release dated August 10, 2005, between Sharon V. Schulzki and the Company (filed as Exhibit 10.27 to our Form 10-Q Quarterly report as filed on November 14, 2005 and incorporated by reference herein)
10.22	Common Stock Purchase Agreement dated April 28, 2005, between Olympus Corporation and the Company (filed as Exhibit 10.21 to our Form 10-Q Quarterly Report as filed on August 15, 2005 and incorporated by reference herein)
10.23	Sublease Agreement dated May 24, 2005, between Biogen Idec, Inc. and the Company (filed as Exhibit 10.21 to our Form 10-Q Quarterly Report as filed on August 15, 2005 and incorporated by reference herein)
10.24#	Employment Offer Letter to Doug Arm, Vice President of Development—Biologics, dated February 1, 2005 (filed as Exhibit 10.21 to our Form 10-Q Quarterly Report as filed on August 15, 2005 and incorporated by reference herein)
10.25#	Employment Offer Letter to Alex Milstein, Vice-President of Clinical Research, dated May 1, 2005 (filed as Exhibit 10.21 to our Form 10-Q Quarterly Report as filed on August 15, 2005 and incorporated by reference herein)
10.26#	Employment Offer Letter to John Ransom, Vice-President of Research, dated November 15, 2005 (filed as Exhibit 10.26 to our Form 10-K Annual Report as filed on March 30, 2006 and incorporated by reference herein)
10.27+	Joint Venture Agreement dated November 4, 2005, between Olympus Corporation and the Company (filed as Exhibit 10.27 to our Form 10-K Annual Report as filed on March 30, 2006 and incorporated by reference herein)
10.28+	License/ Commercial Agreement dated November 4, 2005, between Olympus-Cytori, Inc. and the Company (filed as Exhibit 10.28 to our Form 10-K Annual Report as filed on March 30, 2006 and incorporated by reference herein)
10.28.1	Amendment One to License/ Commercial Agreement dated November 14, 2007, between Olympus-Cytori, Inc. and the Company (filed as Exhibit 10.28.1 to our Form 10-K Annual Report as filed on March 14, 2008 and incorporated by reference herein).

10.29+	License/ Joint Development Agreement dated November 4, 2005, between Olympus Corporation, Olympus-Cytori, Inc. and the Company (filed as Exhibit 10.29 to our Form 10-K Annual Report as filed on March 30, 2006 and incorporated by reference herein)
10.29.1	Amendment No. 1 to License/ Joint Development Agreement dated May 20, 2008, between Olympus Corporation, Olympus-Cytori, Inc. and the Company (filed as Exhibit 10.29.1 to our Form 10-Q Quarterly Report as filed on August 11, 2008 and incorporated by reference herein).
10.30+	Shareholders Agreement dated November 4, 2005, between Olympus Corporation and the Company (filed as Exhibit 10.30 to our Form 10-K Annual Report as filed on March 30, 2006 and incorporated by reference herein)
10.31+	Exclusive Negotiation Agreement with Olympus Corporation, dated February 22, 2006 (filed as Exhibit 10.31 to our Form 10-Q Quarterly Report as filed on May 15, 2006 and incorporated by reference herein)
10.32	Common Stock Purchase Agreement, dated August 9, 2006, by and between Cytori Therapeutics, Inc. and Olympus Corporation (filed as Exhibit 10.32 to our Form 8-K Current Report as filed on August 15, 2006 and incorporated by reference herein)
10.33	Form of Common Stock Subscription Agreement, dated August 9, 2006 (Agreements on this form were signed by Cytori and each of respective investors in the Institutional Offering) (filed as Exhibit 10.33 to our Form 8-K Current Report as filed on August 15, 2006 and incorporated by reference herein)
10.34	Placement Agency Agreement, dated August 9, 2006, between Cytori Therapeutics, Inc. and Piper Jaffray & Co. (filed as Exhibit 10.34 to our Form 8-K Current Report as filed on August 15, 2006 and incorporated by reference herein)
10.35#	Stock Option Extension Agreement between Bruce A. Reuter and Cytori Therapeutics, Inc. effective July 25, 2006 (filed as Exhibit 10.35 to our Form 10-Q Quarterly Report as filed on November 145, 2006 and incorporated by reference herein)
10.36#	Stock Option Extension Agreement between Elizabeth A. Scarbrough and Cytori Therapeutics, Inc. effective July 25, 2006 (filed as Exhibit 10.36 to our Form 10-Q Quarterly Report as filed on November 14, 2006 and incorporated by reference herein)
10.37#	Employment Agreement between Bruce A. Reuter and Cytori Therapeutics, Inc. effective July 25, 2006 (filed as Exhibit 10.37 to our Form 10-Q Quarterly Report as filed on November 14, 2006 and incorporated by reference herein)
10.38#	Employment Agreement between Elizabeth A. Scarbrough and Cytori Therapeutics, Inc. effective July 25, 2006 (filed as Exhibit 10.38 to our Form 10-Q Quarterly Report as filed on November 14, 2006 and incorporated by reference herein)
10.39+	Exclusive License Agreement between us and the Regents of the University of California dated October 16, 2001 (filed as Exhibit 10.10 to our Form 10-K Annual Report as filed on March 31, 2003 and incorporated by reference herein)
10.39.1 +	Amended and Restated Exclusive License Agreement, effective September 26, 2006, by and between The Regents of the University of California and Cytori Therapeutics, Inc. (filed as Exhibit 10.39 to our Form 10-Q Quarterly Report as filed on November 14, 2006 and incorporated by reference herein)
10.40#	Stock Option Extension Agreement between Charles Galetto and Cytori Therapeutics, Inc. signed on May 24, 2006 and effective as of June 1, 2006 (filed as Exhibit 10.20 to our Form 10-Q Quarterly Report as filed on August 14, 2006 and incorporated by reference herein)
10.41#	Part-time Employment Agreement between Charles Galetto and Cytori Therapeutics, Inc. signed on May 24, 2006 and effective as of June 1, 2006 (filed as Exhibit 10.21 to our Form 10-Q Quarterly Report as filed on August 14, 2006 and incorporated by reference herein)
10.42	Placement Agency Agreement, dated February 23, 2007, between Cytori Therapeutics, Inc. and Piper Jaffray & Co. (filed as Exhibit 10.1 to our Form 8-K Current Report as filed on February 26, 2007 and incorporated by reference herein).
10.43	Financial services advisory engagement letter agreement, dated February 16, 2007, between Cytori Therapeutics, Inc. and WBB Securities, LLC (filed as Exhibit 10.2 to our Form 8-K Current Report as filed on February 26, 2007 and incorporated by reference herein)
10.44	Form of Subscription Agreement, dated February 23, 2007 (filed as Exhibit 10.3 to our Form 8-K Current Report as filed on February 26, 2007 and incorporated by reference herein)
10.45	Form of Warrant to be dated February 28, 2007 (filed as Exhibit 10.4 to our Form 8-K Current Report as filed on February 26, 2007 and incorporated by reference herein)
10.46	Common Stock Purchase Agreement, dated March 28, 2007, by and between Cytori Therapeutics, Inc. and Green Hospital Supply, Inc. (filed as Exhibit 10.46 to our Form 10-Q Quarterly Report as filed on May 11, 2007 and incorporated by reference herein).
10.47	Consulting Agreement, dated May 3, 2007, by and between Cytori Therapeutics, Inc. and Marshall G. Cox. (filed as Exhibit 10.47

	to our Form 10-Q Quarterly Report as filed on August 14, 2007 and incorporated by reference herein).
10.48+	Master Cell Banking and Cryopreservation Agreement, effective August 13, 2007, by and between Green Hospital Supply, Inc. and Cytori Therapeutics, Inc. (filed as Exhibit 10.48 to our Form 10-Q Quarterly Report as filed on November 13, 2007 and incorporated by reference herein).
10.48.1	Amendment No. 1 to Master Cell Banking and Cryopreservation Agreement, effective June 4, 2008, by and between Green Hospital Supply, Inc. and the Company (filed as Exhibit 10.48.1 to our Form 8-K Current Report as filed on June 10, 2008 and incorporated by reference herein).
10.49+	License & Royalty Agreement, effective August 23, 2007, by and between Olympus-Cytori, Inc. and Cytori Therapeutics, Inc. (filed as Exhibit 10.49 to our Form 10-Q Quarterly Report as filed on November 13, 2007 and incorporated by reference herein).
10.50	General Release Agreement, dated August 13, 2007, between John Ransom and Cytori Therapeutics, Inc. (filed as Exhibit 10.49 to our Form 10-Q Quarterly Report as filed on November 13, 2007 and incorporated by reference herein).
10.51	Common Stock Purchase Agreement, dated February 8, 2008, by and between Green Hospital Supply, Inc. and Cytori Therapeutics, Inc. (filed as Exhibit 10.51 to our Form 8-K Current Report as filed on February 19, 2008 and incorporated by reference herein).
10.51.1	Amendment No. 1 to Common Stock Purchase Agreement, dated February 29, 2008, by and between Green Hospital Supply, Inc. and Cytori Therapeutics, Inc. (filed as Exhibit 10.51.1 to our Form 8-K Current Report as filed on February 29, 2008 and incorporated by reference herein).
10.52#	Agreement for Acceleration and/or Severance, dated January 31, 2008, by and between Christopher J. Calhoun and Cytori Therapeutics, Inc. (filed as Exhibit 10.52 to our Form 10-K Annual Report as filed on March 14, 2008 and incorporated by reference herein).
10.53#	Agreement for Acceleration and/or Severance, dated January 31, 2008, by and between Marc H. Hedrick and Cytori Therapeutics, Inc. (filed as Exhibit 10.53 to our Form 10-K Annual Report as filed on March 14, 2008 and incorporated by reference herein).
10.54#	Agreement for Acceleration and/or Severance, dated January 31, 2008, by and between Mark E. Saad and Cytori Therapeutics, Inc. (filed as Exhibit 10.54 to our Form 10-K Annual Report as filed on March 14, 2008 and incorporated by reference herein).
10.55	Common Stock Purchase Agreement, dated August 7, 2008, by and between the Company and Olympus Corporation (filed as Exhibit 10.32 to our current report on Form 8-K filed on August 8, 2008 and incorporated by reference herein).
10.55.1	Amendment No. 1 to Common Stock Purchase Agreement, dated August 8, 2008, by and between the Company and Olympus Corporation (filed as Exhibit 10.32.1 to our current report on Form 8-K filed on August 14, 2008 and incorporated by reference herein).
10.56	Securities Purchase Agreement, dated August 7, 2008, by and among the Company and the Purchasers identified on the signature pages thereto (filed as Exhibit 10.33 to our current report on Form 8-K filed on August 8, 2008 and incorporated by reference herein).
10.57	Form of Warrant to Purchase Common Stock issued on August 11, 2008 pursuant to the Securities Purchase Agreement, dated August 7, 2008, by and among the Company and the Purchasers identified on the signature pages thereto (filed as Exhibit 10.34 to our current report on Form 8-K filed on August 8, 2008 and incorporated by reference herein).
10.58	Registration Rights Agreement, dated August 7, 2008, by and among the Company and the Purchasers identified on the signature pages thereto (filed as Exhibit 10.35 to our current report on Form 8-K filed on August 8, 2008 and incorporated by reference herein).
10.59	Loan and Security Agreement, dated October 14, 2008, by and among the Company, General Electric Capital Corporation, and the other lenders signatory thereto (filed herewith).
10.60	Promissory Note issued by the Company in favor of General Electric Capital Corporation or any subsequent holder thereof, pursuant to the Loan and Security Agreement dated October 14, 2008 (filed herewith).
10.61	Warrant to Purchase Common Stock issued by the Company on October 14, 2008 in favor of GE Capital Equity Investments, Inc., pursuant to the Loan and Security Agreement dated October 14, 2008 (filed herewith).
10.62	Warrant to Purchase Common Stock issued by the Company on October 14, 2008 in favor of Silicon Valley Bank, pursuant to the Loan and Security Agreement dated October 14, 2008 (filed herewith).
14.1	Code of Ethics (filed as Exhibit 14.1 to our Annual Report on Form 10-K which was filed on March 30, 2004 and incorporated by reference herein)

23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm (filed herewith).
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).

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\+ *Portions of these exhibits have been omitted pursuant to a request for confidential treatment.*

\# *Indicates management contract or compensatory plan or arrangement.*

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

CYTORI THERAPEUTICS, INC.

By: /s/ Christopher J. Calhoun
Christopher J. Calhoun
Chief Executive Officer
March 6, 2009

Pursuant to the requirements of the Securities Exchange Act of 1934, this annual report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ Ronald D. Henriksen Ronald D. Henriksen	*Chairman of the Board of Directors*	March 6, 2009
/s/ Christopher J. Calhoun Christopher J. Calhoun	*Chief Executive Officer, Vice-Chairman, Director (Principal Executive Officer)*	March 6, 2009
/s/ Marc H. Hedrick, MD Marc H. Hedrick, MD	*President, Director*	March 6, 2009
/s/ Mark E. Saad Mark E. Saad	*Chief Financial Officer (Principal Financial Officer)*	March 6, 2009
/s/ John W. Townsend John W. Townsend	*Chief Accounting Officer*	March 6, 2009
/s/ David M. Rickey David M. Rickey	*Director*	March 6, 2009
/s/ Rick Hawkins Rick Hawkins	*Director*	March 6, 2009
/s/ E. Carmack Holmes, MD E. Carmack Holmes, MD	*Director*	March 6, 2009
/s/ Paul W. Hawran Paul W. Hawran	*Director*	March 6, 2009

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT , dated as of October 14, 2008 (as amended, restated, supplemented or otherwise modified from time to time, this " Agreement ") is among GENERAL ELECTRIC CAPITAL CORPORATION (" GECC "), in its capacity as agent for Lenders (as defined below) (together with its successors and assigns in such capacity, " Agent "), the financial institutions who are or hereafter become parties to this Agreement as lenders (together with GECC, collectively the " Lenders ", and each individually, a " Lender "), CYTORI THERAPEUTICS, INC., a Delaware corporation (" Borrower "), and the other entities or persons, if any, who are or hereafter become parties to this Agreement as guarantors (each a " Guarantor " and collectively, the " Guarantors ", and together with Borrower, each a " Loan Party " and collectively, " Loan Parties ").

RECITALS

Borrower wishes to borrow funds from time to time from Lenders, and Lenders desire to make loans, advances and other extensions of credit, severally and not jointly, to Borrower from time to time pursuant to the terms and conditions of this Agreement.

AGREEMENT

Loan Parties, Agent and Lenders agree as follows:

1. DEFINITIONS.

As used in this Agreement, all capitalized terms shall have the definitions as provided herein. Any accounting term used but not defined herein shall be construed in accordance with generally accepted accounting principles in the United States of America, as in effect from time to time (" GAAP ") and all calculations shall be made in accordance with GAAP. The term "financial statements" shall include the accompanying notes and schedules. All other terms used but not defined herein shall have the meaning given to such terms in the Uniform Commercial Code as adopted in the State of New York, as amended and supplemented from time to time (the " UCC ").

2. LOANS AND TERMS OF PAYMENT.

2.1. **Promise to Pay.** Borrower promises to pay Agent, for the ratable accounts of Lenders, when due pursuant to the terms hereof, the aggregate unpaid principal amount of all loans, advances and other extensions of credit made severally by the Lenders to Borrower under this Agreement, together with interest on the unpaid principal amount of such loans, advances and other extensions of credit at the interest rates set forth herein.

2.2. **Term Loans** .

(a) Commitment . Subject to the terms and conditions hereof, each Lender, severally, but not jointly, agrees to make term loans (each a " Term Loan " and collectively, the " Term Loans ") to Borrower from time to time on any Business Day (as defined below) during the period from the Closing Date (as defined below) until December 12, 2008 (the " Commitment Termination Date ") in an aggregate principal amount not to exceed such Lender's commitment as identified on Schedule A hereto (such commitment of each Lender as it may be amended to

reflect assignments made in accordance with this Agreement or terminated or reduced in accordance with this Agreement, its " Commitment ", and the aggregate of all such commitments, the " Commitments "). Notwithstanding the foregoing, the aggregate principal amount of the Term Loans made hereunder shall not exceed $15,000,000 (the " Total Commitment "). Each Lender's obligation to fund a Term Loan shall be limited to such Lender's Pro Rata Share (as defined below) of such Term Loan. Subject to the terms and conditions hereof, the initial Term Loan shall be made on the Closing Date in an aggregate principal amount equal to $7,500,000 (the " Initial Term Loan "). After the Initial Term Loan, Borrower may request one (1) additional Term Loan, and such subsequent Term Loan (the " Subsequent Term Loan ") must be in an amount equal to $7,500,000.

(b) Method of Borrowing . When Borrower desires a Term Loan, Borrower will notify Agent (which notice shall be irrevocable) by facsimile (or by telephone, provided that such telephonic notice shall be promptly confirmed in writing, but in any event on or before the following Business Day) on the date that is ten (10) Business Days prior to the day the Term Loan (other than the Initial Term Loan) is to be made (or such shorter period of time as Agent may agree). Agent and Lenders may act without liability upon the basis of such written or telephonic notice believed by Agent to be from any authorized officer of Borrower. Agent and Lenders shall have no duty to verify the authenticity of the signature appearing on any such written notice.

(c) Funding of Term Loans . Promptly after receiving a request for a Term Loan, Agent shall notify each Lender of the contents of such request and such Lender's Pro Rata Share of the requested Term Loan. Upon the terms and subject to the conditions set forth herein, each Lender, severally and not jointly, shall make available to Agent its Pro Rata Share of the requested Term Loan, in lawful money of the United States of America in immediately available funds, to the Collection Account (as defined below) prior to 11:00 a.m. (New York time) on the specified date. Agent shall, unless it shall have determined that one of the conditions set forth in Section 4.1 or 4.2, as applicable, has not been satisfied, by 4:00 p.m. (New York time) on such day, credit the amounts received by it in like funds to Borrower by wire transfer to, unless otherwise specified in a Disbursement Letter (as defined below), the following deposit account of Borrower (or such other deposit account as specified in writing by an authorized officer of Borrower and acceptable to Agent) (the " Designated Deposit Account "):

Bank Name: U.S. Bank N.A.
Bank Address: XXXXXXX
ABA#: XXXXXXX
Account #: XXXXXXX
Account Name: Cytori
Ref: XXXXXXX

(d) Notes . If requested by a Lender, the Term Loans of such Lender shall be evidenced by a promissory note substantially in the form of Exhibit A hereto (each a " Note " and, collectively, the " Notes "), and Borrower shall execute and deliver a Note to such Lender. Each Note shall represent the obligation of Borrower to pay to such Lender the lesser of (a) the aggregate unpaid principal amount of all Term Loans made by such Lender to or on behalf of Borrower under this Agreement or (b) the amount of such Lender's Commitment, in each case together with interest thereon as prescribed in Section 2.3(a).

(e) Agent May Assume Funding . Unless Agent shall have received notice from a Lender prior to the date of any particular Term Loan that such Lender will not make available to

Agent such Lender's Pro Rata Share of such Term Loan, Agent may assume that such Lender has made such amount available to it on the date of such Term Loan in accordance with subsection (c) of this Section 2.2, and may (but shall not be obligated to), in reliance upon such assumption, make available a corresponding amount for the account of Borrower on such date. If and to the extent that such Lender shall not have so made such amount available to Agent, such Lender and Borrower severally agree to repay to Agent forthwith on demand such corresponding amount together with interest thereon, for each day from the day such amount is made available to Borrower until the day such amount is repaid to Agent, at (i) in the case of Borrower, a rate per annum equal to the interest rate applicable thereto pursuant to Section 2.3(a), and (ii) in the case of such Lender, a floating rate per annum equal to, for each day from the day such amount is made available to Borrower until such amount is reimbursed to Agent, the weighted average of the rates on overnight federal funds transactions among members of the Federal Reserve System, as determined by Agent in its sole discretion (the " Federal Funds Rate ") for the first Business Day and thereafter, at the interest rate applicable to such Term Loan. If such Lender shall repay such corresponding amount to Agent, the amount so repaid shall constitute such Lender's loan included in such Term Loan for purposes of this Agreement.

2.3. Interest and Repayment.

(a) Interest . Each Term Loan shall accrue interest in arrears from the date made until such Term Loan is fully repaid at a fixed per annum rate of interest equal to 10.58%. All computations of interest and fees calculated on a per annum basis shall be made by Agent on the basis of a 360-day year, in each case for the actual number of days occurring in the period for which such interest and fees are payable. Each determination of an interest rate or the amount of a fee hereunder shall be made by Agent and shall be conclusive, binding and final for all purposes, absent manifest error. As used herein, the term "Treasury Rate" means a per annum rate of interest equal to the rate published by the Board of Governors of the Federal Reserve System in Federal Reserve Statistical Release H.15 entitled "Selected Interest Rates" under the heading "U.S. Government Securities/Treasury Constant Maturities" as the three year treasuries constant maturities rate. In the event Release H.15 is no longer published, Agent shall select a comparable publication to determine the U.S. Treasury note yield to maturity.

(b) Payments of Principal and Interest . For the Initial Term Loan, Borrower shall pay to the Agent, for the ratable benefit of the Lenders, (i) one payment of interest only (payable in arrears) for the period from the Closing Date to and including October 31, 2008 at the rate of interest determined in accordance with Section 2.3(a), to be paid on November 1, 2008, (ii) three (3) consecutive payments of interest only (payable in arrears) at the rate of interest determined in accordance with Section 2.3(a) on the first day of each calendar month (a " Scheduled Payment Date ") commencing on December 1, 2008 and (iii) thirty-three (33) equal consecutive payments of principal and interest (payable in arrears) at the rate of interest determined in accordance with Section 2.3(a) on each Scheduled Payment Date commencing on March 1, 2009. For the Subsequent Term Loan, Borrower shall pay to the Agent, for the ratable benefit of the Lenders, (i) one payment of interest only (payable in arrears) for the period from date of funding such Subsequent Term Loan to and including the last day of the month in which the Subsequent Term Loan was made at the rate of interest determined in accordance with Section 2.3(a), to be paid on the first day of the calendar month occurring after the month in which the Subsequent Term Loan was made, and (ii) thirty-six (36) equal consecutive payments of principal and interest (payable in arrears) at the rate of interest determined in accordance with Section 2.3(a) on each Scheduled Payment Date commencing on the first day of the second calendar month occurring after the month during which the Subsequent Term Loan was made. The amount of each such payment of principal and interest with respect to each of the Initial Term Loan and the Subsequent Term

Loan shall be calculated by the Agent and shall be sufficient to fully amortize the principal and interest due with respect to the applicable Term Loan over such repayment period. Each scheduled payment of interest only or interest and principal hereunder is referred to herein as a " Scheduled Payment ." Notwithstanding the foregoing, all unpaid principal and accrued interest with respect to a Term Loan is due and payable in full to Agent, for the ratable benefit of Lenders, on the earlier of (A) the first day of the thirty-seventh month following the date such Term Loan was made or (B) the date that such Term Loan otherwise becomes due and payable hereunder, whether by acceleration of the Obligations (as defined below) pursuant to Section 8.2 or otherwise (the earlier of (A) or (B), the " Applicable Term Loan Maturity Date "). Each Scheduled Payment, when paid, shall be applied first to the payment of accrued and unpaid interest on the applicable Term Loan and then to unpaid principal balance of such Term Loan. Without limiting the foregoing, all Obligations shall be due and payable on the Applicable Term Loan Maturity Date for the last Term Loan made.

(c) No Reborrowing . Once a Term Loan is repaid or prepaid, it cannot be reborrowed.

(d) Payments . All payments (including prepayments) to be made by any Loan Party under any Debt Document shall be made in immediately available funds in U.S. dollars, without setoff or counterclaim to the Collection Account (as defined below) before 11:00 a.m. (New York time) on the date when due. All payments received by Agent after 11:00 a.m. (New York time) on any Business Day or at any time on a day that is not a Business Day shall be deemed to be received on the next Business Day. Whenever any payment required under this Agreement would otherwise be due on a date that is not a Business Day, such payment shall instead be due on the next Business Day, and additional fees or interest, as the case may be, shall accrue and be payable for the period of such extension. The payment of any Scheduled Payment prior to its due date shall be deemed to have been received on such due date for purposes of calculating interest hereunder. All Scheduled Payments due to Agent and Lenders under Section 2.3(b) shall be effected by automatic debit of the appropriate funds from Borrower's operating account specified on the EPS Setup Form (as defined below). As used herein, the term " Collection Account " means the following account of Agent (or such other account as Agent shall identify to Borrower in writing):

Bank Name: Deutsche Bank
Bank Address: XXXXXXX
ABA Number: XXXXXXX
Account Number: XXXXXXX
Account Name: GECC HH Cash Flow Collections
Ref: XXXXXXX

(e) Withholdings and Increased Costs . All payments shall be made free and clear of any taxes, withholdings, duties, impositions or other charges (other than taxes on the overall net income of any Lender and comparable taxes), such that Agent and Lenders will receive the entire amount of any Obligations, regardless of source of payment. If Agent or any Lender shall have reasonably determined that the introduction of or any change in, after the date hereof, any law, treaty, governmental (or quasi-governmental) rule, regulation, guideline or order reduces the rate of return on Agent or such Lender's capital as a consequence of its obligations hereunder or increases the cost to Agent or such Lender of agreeing to make or making, funding or maintaining any Term Loan, then Borrower shall from time to time upon demand by Agent or such Lender (with a copy of such demand to Agent) promptly pay to Agent for its own account or for the account of such Lender, as the case may be, additional amounts sufficient to compensate Agent or such Lender for such reduction or for such increased cost. A certificate as to the amount of such

reduction or such increased cost submitted by Agent or such Lender (with a copy to Agent) to Borrower shall be conclusive and binding on Borrower, absent manifest error, provided that, neither Agent nor any Lender shall be entitled to payment of any amounts under this Section 2.3(e) unless it has delivered such certificate to Borrower within 180 days after the occurrence of the changes or events giving rise to the increased costs to, or reduction in the amounts received by, Agent or such Lender. This provision shall survive the termination of this Agreement. Any Lender claiming any additional amounts payable pursuant to this Section 2.3(e) shall use its reasonable efforts (consistent with its internal policies and requirements of law) to change the jurisdiction of its lending office if such a change would reduce any such additional amounts (or any similar amount that may thereafter accrue) and would not, in the sole determination of such Lender, be otherwise disadvantageous to such Lender. Each Lender organized under the laws of a jurisdiction outside the United States as to which payments to be made under this Agreement or under the Notes are exempt from United States withholding tax under an applicable statute or tax treaty shall provide to Borrower and Agent a properly completed and executed IRS Form W 8ECI or Form W 8BEN or other applicable form, certificate or document prescribed by the IRS or the United States.

(f) Loan Records . Each Lender shall maintain in accordance with its usual practice accounts evidencing the Obligations of Borrower to such Lender resulting from such Lender's Pro Rata Share of each Term Loan, including the amounts of principal and interest payable and paid to such Lender from time to time under this Agreement. Agent shall maintain in accordance with its usual practice a loan account on its books to record the Term Loans and any other extensions of credit made by Lenders hereunder, and all payments thereon made by Borrower. The entries made in such accounts shall, to the extent permitted by applicable law, be prima facie evidence of the existence and amounts of the Obligations recorded therein absent manifest error; provided , however , that no error in such account and no failure of any Lender or Agent to maintain any such account shall affect the obligations of Borrower to repay the Obligations in accordance with their terms.

(g) Payment of Expenses . Agent is authorized to, and at its sole election may, debit funds from Borrower's operating account specified on the EPS Setup Form (as defined below) to pay all fees, expenses, costs and interest owing by Borrower under this Agreement or any of the other Debt Documents if and to the extent Borrower fails to pay any such amounts within three (3) Business Days of the date when due.

2.4. **Prepayments.** Borrower can voluntarily prepay, upon five (5) Business Days' prior written notice to Agent, any Term Loan in full, but not in part. Upon the date of (a) any voluntary prepayment of a Term Loan in accordance with the immediately preceding sentence or (b) any mandatory prepayment of a Term Loan required under this Agreement (whether by acceleration of the Obligations pursuant to Section 8.2 or otherwise, except to the extent that the sole basis for such acceleration is the occurrence of an Event of Default under Section 8.1(h)), Borrower shall pay to Agent, for the ratable benefit of the Lenders, a sum equal to (i) all outstanding principal plus accrued interest with respect to such Term Loan, (ii) the Final Payment Fee (as such term is defined in Section 2.7(d)) for such Term Loan, and (iii) a prepayment premium (as yield maintenance for the loss of a bargain and not as a penalty) equal to: (i) 4% of such prepayment amount, if such prepayment is made on or before the one year anniversary of such Term Loan, (ii) 3% of such prepayment amount, if such prepayment is made after the one year anniversary of such Term Loan but on or before the two year anniversary of such Term Loan, and (iii) 2% of such prepayment amount, if such prepayment is made after the two year anniversary of such Term Loan but before the first day of the thirty-seventh month following the date such Term Loan was made.

2.5. **Late Fees.** If Agent does not receive any Scheduled Payment or other payment under any Debt Document from any Loan Party within 5 days after its due date, then, at Agent's election or upon the request of the Requisite Lenders (as defined below), such Loan Party agrees to pay to Agent for the ratable benefit of all Lenders, a late fee equal to (a) 5% of the amount of such unpaid payment or (b) such lesser amount that, if paid, would not cause the interest and fees paid by such Loan Party under this Agreement to exceed the Maximum Lawful Rate (as defined below) (the " Late Fee ").

2.6. **Default Rate.** All Term Loans and other Obligations shall bear interest, at the option of Agent or upon the request of the Requisite Lenders, from and after the occurrence and during the continuation of an Event of Default (as defined below), at a rate equal to the lesser of (a) 5% above the rate of interest applicable to such Obligations as set forth in Section 2.3(a) immediately prior to the occurrence of the Event of Default and (b) the Maximum Lawful Rate (the " Default Rate "). The application of the Default Rate shall not be interpreted or deemed to extend any cure period or waive any Default or Event of Default or otherwise limit the Agent's or any Lender's right or remedies hereunder. All interest payable at the Default Rate shall be payable on demand.

2.7. **Lender Fees.**

(a) Agency Fee . On the Closing Date, Borrower shall pay to Agent, for its own account, a non-refundable agency fee in an amount equal to $175,000, which fee shall be fully earned when paid.

(b) Closing Fee . On the Closing Date, Borrower shall pay to Agent, for the benefit of Lenders in accordance with their Pro Rata Shares, a non-refundable closing fee in an amount equal to $300,000, which fee shall be fully earned when paid.

(c) Unused Line Fee . On the Commitment Termination Date, Borrower shall pay to Agent, for the benefit of Lenders in accordance with their Pro Rata Shares, a non-refundable unused line fee equal to 1.0% of the undrawn amount of the Total Commitment as of such date, which fee shall be fully earned on the Commitment Termination Date, regardless of whether the Subsequent Term Loan is advanced.

(d) Final Payment Fee. On the date upon which the outstanding principal amount of any Term Loan is repaid in full, or if earlier, is required to be repaid in full (whether by scheduled payment, voluntary prepayment, acceleration of the Obligations pursuant to Section 8.2 or otherwise), Borrower shall pay to Agent, for the ratable accounts of Lenders, a fee equal to 5.0% of the original principal amount of such Term Loan (the " Final Payment Fee "), which Final Payment Fee shall be deemed to be fully-earned on the Closing Date.

2.8. **Maximum Lawful Rate.** Anything herein, any Note or any other Debt Document (as defined below) to the contrary notwithstanding, the obligations of Loan Parties hereunder and thereunder shall be subject to the limitation that payments of interest shall not be required, for any period for which interest is computed hereunder, to the extent (but only to the extent) that contracting for or receiving such payment by Agent and Lenders would be contrary to the provisions of any law applicable to Agent and Lenders limiting the highest rate of interest which may be lawfully contracted for, charged or received by Agent and Lenders, and in such event Loan Parties shall pay Agent and Lenders interest at the highest rate permitted by applicable law (" Maximum Lawful Rate "); provided , however , that if at any time thereafter the rate of interest payable hereunder or thereunder is less than the Maximum Lawful Rate, Loan Parties shall continue to pay interest hereunder at the Maximum Lawful Rate until such time as the total interest received by Agent and Lenders is equal to the total interest that would have been received had the interest payable hereunder been (but for the operation of this paragraph) the interest rate payable

since the making of the Initial Term Loan as otherwise provided in this Agreement, any Note or any other Debt Document.

2.9. **Authorization and Issuance of the Warrants.** Borrower has duly authorized the issuance to Lenders (or their respective affiliates or designees) of stock purchase warrants substantially in the form of the warrant attached hereto as Exhibit F (collectively, the " Warrants ") evidencing Lenders' (or their respective affiliates or designees) right to acquire their respective Pro Rata Share of up to 178,148 shares of common stock of Borrower at an exercise price of $4.21 per share. Subject to the terms and conditions of the Warrants, the exercise period shall expire ten (10) years from the date such Warrants are issued.

3. CREATION OF SECURITY INTEREST.

3.1. **Grant of Security Interest.** As security for the prompt payment and performance, whether at the stated maturity, by acceleration or otherwise, of all Term Loans and other debt, obligations and liabilities of any kind whatsoever of Borrower to Agent and Lenders under the Debt Documents whether for principal, interest, fees, expenses, prepayment premiums, indemnities, reimbursements or other sums, and whether or not such amounts accrue after the filing of any petition in bankruptcy or after the commencement of any insolvency, reorganization or similar proceeding, and whether or not allowed in such case or proceeding), absolute or contingent, now existing or arising in the future, including but not limited to the payment and performance of any outstanding Notes, and any renewals, extensions and modifications of such Term Loans (such indebtedness under the Notes, Term Loans and other debt, obligations and liabilities in connection with the Debt Documents are collectively called the " Obligations "), and as security for the prompt payment and performance by each Guarantor of the Guaranteed Obligations as defined in the Guaranty (as defined below), each Loan Party does hereby grant to Agent, for the benefit of Agent and Lenders, a security interest in the property listed below (all hereinafter collectively called the " Collateral "):

> All of such Loan Party's personal property of every kind and nature whether now owned or hereafter acquired by, or arising in favor of, such Loan Party, and regardless of where located, including, without limitation, all accounts, chattel paper (whether tangible or electronic), commercial tort claims, deposit accounts, documents, equipment, financial assets, fixtures, goods, instruments, investment property (including, without limitation, all securities accounts), inventory, letter-of-credit rights, letters of credit, securities, supporting obligations, cash, cash equivalents, any other contract rights (including, without limitation, rights under any license agreements), or rights to the payment of money, and general intangibles (including Intellectual Property, as defined in Section 3.3 below), and all books and records of such Loan Party relating thereto, and in and against all additions, attachments, accessories and accessions to such property, all substitutions, replacements or exchanges therefor, all proceeds, insurance claims, products, profits and other rights to payments not otherwise included in the foregoing (with each of the foregoing terms that are defined in the UCC having the meaning set forth in the UCC).

Notwithstanding the provisions of this Section 3.1 or Section 3.3 below, the grant of security interest herein shall not extend to and the term "Collateral" shall not include: (i) to the extent that Borrower would incur adverse tax consequences resulting from a pledge of 100% of the shares of the outstanding capital stock of any Subsidiary of Borrower that is incorporated or organized in a jurisdiction other than the United States or any state or territory thereof (each, a " Foreign Subsidiary "), more than 65% of the issued and outstanding voting capital stock of such Foreign Subsidiary or Foreign Subsidiaries, as applicable (but the Collateral shall still include 100% of the shares of the outstanding non-voting capital stock of such Foreign Subsidiary or Foreign Subsidiaries, as applicable), (ii) any license or contract (in each case to the extent such license or contract is not prohibited by this Agreement), and the property

subject to such license or contract, to the extent and only to the extent that (A) the granting of such security interest is prohibited by any applicable statute, law or regulation, or would constitute a default under the license or contract, as applicable, and (B) such prohibition or default is enforceable under applicable law (including without limitation Sections 9-406, 9-407 and 9-408 of the UCC); provided that upon the termination or expiration of any such prohibition, such license, contract and/or property, as applicable, shall automatically be subject to the security interest granted in favor of the Agent hereunder and become part of the "Collateral" or (iii) Borrower's stock in Olympus-Cytori, Inc., a Delaware corporation (such entity, " Olympus-Cytori " and such stock, the " Olympus-Cytori Stock "); provided that upon the termination or expiration of all provisions in the Olympus Agreements (as defined below) prohibiting the granting of a Lien in the Olympus-Cytori Stock, the Olympus-Cytori Stock shall automatically be subject to the security interest granted in favor of the Agent hereunder and become part of the "Collateral."

Each Loan Party hereby represents and covenants that such security interest constitutes a valid, first priority security interest (subject only to Permitted Liens) in the presently existing Collateral, and will constitute a valid, first priority security interest (subject only to Permitted Liens) in Collateral acquired after the date hereof. Each Loan Party hereby covenants that it shall give written notice to Agent promptly upon the acquisition by such Loan Party or creation in favor of such Loan Party of any commercial tort claim after the Closing Date.

3.2. **Financing Statements.** Each Loan Party hereby authorizes Agent to file UCC financing statements with all appropriate jurisdictions to perfect Agent's security interest (for the benefit of itself and the Lenders) granted hereby.

3.3. **Grant of Intellectual Property Security Interest.** The Collateral shall include all intellectual property of each Loan Party, which shall be defined as any and all copyright, trademark, servicemark, patent, design right, software, license, trade secret and intangible rights of a Loan Party and any applications, registrations, claims, products, awards, judgments, amendments, renewals, extensions, improvements and insurance claims related thereto (collectively, " Intellectual Property ") now or hereafter owned or licensed by a Loan Party, together with all accessions and additions thereto, proceeds and products thereof (including, without limitation, any proceeds resulting under insurance policies). In order to perfect or protect Agent's security interest and other rights in Loan Party's Intellectual Property, each Loan Party hereby authorizes Agent to file one or more intellectual property security agreements, substantially in the form executed and delivered to Agent on the Closing Date (each an " Intellectual Property Security Agreement " and collectively, the " Intellectual Property Security Agreements ") with the United States Patent and Trademark Office and/or United States Copyright Office, as each are applicable and required by Agent.

3.4. **Termination of Security Interest** . Upon the date on which all of the Obligations (other than contingent indemnity obligations that survive the termination of this Agreement and for which no claim has been asserted) are indefeasibly repaid in full in cash, all of the Commitments hereunder are terminated, and this Agreement shall have been terminated (the " Termination Date "), and upon receipt of a payoff letter or termination agreement executed by the Loan Parties in form and substance acceptable to Agent, Agent shall, at Loan Parties' sole cost and expense and without any recourse, representation or warranty, release its Liens in the Collateral.

4. CONDITIONS OF CREDIT EXTENSIONS

4.1. **Conditions Precedent to Initial Term Loan.** No Lender shall be obligated to make the Initial Term Loan, or to take, fulfill, or perform any other action hereunder, until the following have been delivered to the Agent and each Lender (the date on which the Lenders make the Initial Term Loan after

all such conditions shall have been satisfied in a manner satisfactory to Agent or waived in accordance with this Agreement, the " Closing Date "):

(a) a counterpart of this Agreement duly executed by each Loan Party;

(b) a certificate executed by the Secretary of each Loan Party, the form of which is attached hereto as Exhibit B (the " Secretary's Certificate "), providing verification of incumbency and attaching (i) such Loan Party's board resolutions approving the transactions contemplated by this Agreement and the other Debt Documents and (ii) such Loan Party's governing documents;

(c) Notes duly executed by Borrower in favor of each applicable Lender (if requested by such Lender);

(d) filed copies of UCC financing statements, collateral assignments, and terminations statements, with respect to the Collateral, as Agent shall request;

(e) certificates of insurance evidencing the insurance coverage, and satisfactory additional insured and lender loss payable endorsements, in each case as required pursuant to Section 6.4 herein;

(f) current UCC lien, judgment, bankruptcy and tax lien search results demonstrating that there are no other security interests or other Liens on the Collateral, other than Permitted Liens (as defined below);

(g) a Warrant in favor of each Lender (or its affiliate or designee);

(h) the Intellectual Property Security Agreement required by Section 3.3 above, duly executed by each Loan Party;

(i) a certificate of good standing of each Loan Party from the jurisdiction of such Loan Party's organization and a certificate of foreign qualification from each jurisdiction where such Loan Party's failure to be so qualified could reasonably be expected to have a Material Adverse Effect (as defined below), in each case as of a recent date acceptable to Agent;

(j) a landlord consent and/or bailee letter in favor of Agent executed by the landlord or bailee, as applicable, for any third party location (other than a Permitted Location as defined below) where (a) any Loan Party's principal place of business is located, (b) any Loan Party's books or records are located or (c) Collateral with an aggregate value in excess of $50,000 is located (each of the locations described in the immediately preceding clauses (a), (b) and (c), a " Collateral Location "), a form of which is attached hereto as Exhibit C-1 and Exhibit C-2 , as applicable (each an " Access Agreement ");

(k) a legal opinion of Loan Parties' counsel, in form and substance satisfactory to Agent;

(l) a completed EPS set-up form, a form of which is attached hereto as Exhibit E (the " EPS Setup Form ");

(m) a completed perfection certificate, duly executed by each Loan Party (the " Perfection Certificate "), a form of which Agent previously delivered to Borrower;

(n) one or more Account Control Agreements (as defined below), in form and substance reasonably acceptable to Agent, duly executed by the applicable Loan Parties and the applicable depository or financial institution, for each deposit and securities account listed on the Perfection Certificate, to the extent required pursuant to the terms and conditions of Section 7.10 ;

(o) a pledge agreement, in form and substance satisfactory to Agent, executed by each Loan Party and pledging to Agent, for the benefit of itself and the Lenders, a security interest in (a) 100% of the shares of the outstanding capital stock, of any class, of each Subsidiary (as defined below) of each Loan Party that is not a Foreign Subsidiary, (b) to the extent that Borrower would incur adverse tax consequences resulting from a pledge of 100% of the shares of the outstanding capital stock of any Foreign Subsidiary, 65% of the shares of the outstanding voting capital stock and 100% of the shares of the outstanding non-voting capital stock of each such Foreign Subsidiary and (c) any and all Indebtedness (as defined in Section 7.2 below) owing to Loan Parties (the " Pledge Agreement ");

(p) a guaranty agreement (together with any other guaranty that purports to provide for a guaranty of the Obligation, the " Guaranty "), in form and substance satisfactory to Agent, executed by each Guarantor;

(q) a disbursement instruction letter, in form and substance satisfactory to Agent, executed by each Loan Party, Agent and each Lender (the " Disbursement Letter ");

(r) Borrower shall have unrestricted balance sheet cash and Cash Equivalents (as defined below) in one or more deposit accounts or securities accounts over which Agent has obtained control under Section 7.10 of not less than the product of (i) negative three (-3) times (ii) the Cash Burn Amount (as defined below) at such time;

(s) evidence of the payment of all loans and other indebtedness, obligations and liabilities of any kind whatsoever of Borrower to GECC in connection with (i) those two certain promissory notes in the original principal amounts of $600,000 and $1,380,467.48, respectively, made by Borrower in favor of GECC and (ii) that certain Master Security Agreement dated as of October 1, 2001 by and between Borrower and GECC (as amended, restated, supplemented or otherwise modified from time to time, and together with all schedules attached thereto) (such loans, indebtedness, obligations and liabilities, collectively, the (" GE Equipment Indebtedness ");

(t) all other documents and instruments as Agent or the Lenders may reasonably deem necessary or appropriate to effectuate the intent and purpose of this Agreement (together with the Agreement, Note, Warrants, Intellectual Property Security Agreements, the Perfection Certificate, the Pledge Agreement, the Guaranty, if any, the Secretary's Certificate and the Disbursement Letter, and all other agreements, instruments, documents and certificates executed and/or delivered to or in favor of Agent and/or the Lenders from time to time in connection with this Agreement or the transactions contemplated hereby, the " Debt Documents "); and

(u) Agent and Lenders shall have received the fees required to be paid by Borrower, if any, in the respective amounts specified in Section 2.7, and Borrower shall have reimbursed Agent and Lenders for all reasonable fees, costs and expenses of closing presented as of the date of this Agreement.

4.2. **Conditions Precedent to All Term Loans.** No Lender shall be obligated to make any Term Loan, including the Initial Term Loan, unless the following additional conditions have been satisfied:

(a) (i) all representations and warranties in Section 5 below shall be true as of the date of such Term Loan, except to the extent such representations and warranties expressly refer to an earlier date, in which case such representations and warranties shall be true and correct as of such earlier date; (ii) no Event of Default or any other event, which with the giving of notice or the passage of time, or both, would constitute an Event of Default (such event, a " Default ") has occurred and is continuing or will result from the making of any Term Loan, and (iii) Agent shall have received a certificate from an authorized officer of each Loan Party confirming each of the foregoing;

(b) Agent shall have received the redelivery or supplemental delivery of the items set forth in the following sections to the extent circumstances have changed since the Initial Term Loan: Sections 4.1(b), (e), (f), (g), (i), (j), (k), (m) and (q);

(c) with respect to the Subsequent Term Loan only, Agent shall have received evidence satisfactory to Agent and the Lenders that Borrower has, at the time of and after giving effect to such Term Loan, satisfied each of the following conditions precedent:

(i) (A) If the Subsequent Term Loan is to be made on or prior to October 31, 2008, the aggregate gross income from the sale of inventory of Borrower and its consolidated Subsidiaries for the period of 3 consecutive months ending as of September 30, 2008 shall not be less than $2,300,000; (B) if the Subsequent Term Loan is to be made after October 31, 2008 but prior to November 30, 2008, the aggregate gross income from the sale of inventory of Borrower and its consolidated Subsidiaries for the period of 3 consecutive months ending as of October 31, 2008 shall not be less than $3,100,000, and (C) if the Subsequent Term Loan is to be made on or after November 30, 2008 but prior to the Commitment Termination Date, the aggregate gross income from the sale of inventory of Borrower and its consolidated Subsidiaries for the period of 3 consecutive months ending as of November 30, 2008 shall not be less than $4,000,000;

(ii) (A) If the Subsequent Term Loan is to be made on or prior to October 31, 2008, the aggregate expenses (excluding non-cash expenses relating to the granting of stock options) and non-financed capital expenditures of Borrower and its consolidated Subsidiaries for the period of 3 consecutive months ending as of September 30, 2008 shall not be greater than $9,100,000; (B) if the Subsequent Term Loan is to be made after October 31, 2008 but prior to November 30, 2008, the aggregate expenses (excluding non-cash expenses relating to the granting of stock options) and non-financed capital expenditures of Borrower and its consolidated Subsidiaries for the period of 3 consecutive months ending as of October 31, 2008 shall not be greater than $8,800,000, and (C) if the Subsequent Term Loan is to be made on or after November 30, 2008 but prior to the Commitment Termination Date, the aggregate expenses (excluding non-cash expenses relating to the granting of stock options) and non-financed capital expenditures of Borrower and its consolidated Subsidiaries for the period of 3 consecutive months ending as of November 30, 2008 shall not be greater than $8,600,000;

(iii) Borrower shall have received at least $10,000,000 in unrestricted net cash proceeds from the sale and issuance of Borrower's equity securities after the Closing Date, which equity issuance shall be on terms and conditions not otherwise prohibited by any provision of this Agreement or the other Debt Documents;

(iv) The market capitalization of Borrower is not less than $100,000,000 based on the 10-day trailing average of Borrower's common stock price, as determined as of the close of business on the Business Day (as defined below) immediately prior to the proposed date of the Subsequent Term Loan;

(v) Borrower shall have unrestricted balance sheet cash and Cash Equivalents (as defined below) in one or more deposit accounts or securities accounts over which Agent has obtained control under Section 7.10 of not less than the product of (i) negative six (-6) times (ii) the Cash Burn Amount (as such term is defined in Section 7.12 below) at such time; and

(vi) Evidence that all obligations set forth in that certain Post-Closing Obligations Letter dated October 14, 2008 by and between Borrower and Agent have been satisfied; and

(d) Agent and Lenders shall have received such other documents, agreements, instruments or information as Agent or such Lender shall reasonably request.

5. REPRESENTATIONS AND WARRANTIES OF LOAN PARTIES.

Each Loan Party, jointly and severally, represents, warrants and covenants to Agent and each Lender that:

5.1. **Due Organization and Authorization.** Each Loan Party's exact legal name is as set forth in the Perfection Certificate (or as disclosed to and consented to by Agent pursuant to Section 7.4) and each Loan Party is, and will remain, duly organized, existing and in good standing under the laws of the State of its organization as specified in the Perfection Certificate, has its chief executive office at the location specified in the Perfection Certificate, and is, and will remain, duly qualified and licensed in every jurisdiction wherever necessary to carry on its business and operations, except where the failure to be so qualified and licensed could not reasonably be expected to have a Material Adverse Effect. This Agreement and the other Debt Documents have been duly authorized, executed and delivered by each Loan Party and constitute legal, valid and binding agreements enforceable in accordance with their terms, subject only to bankruptcy, moratorium, insolvency and other laws of general application affecting secured creditors and general principles of equity. The execution, delivery and performance by each Loan Party of each Debt Document executed or to be executed by it is in each case within such Loan Party's powers.

5.2. **Required Consents.** No filing, registration, qualification with, or approval, consent or withholding of objections from, any governmental authority or instrumentality or any other entity or person is required with respect to the entry into, or performance by any Loan Party of, any of the Debt Documents, except any already obtained.

5.3. **No Conflicts.** Except as described in the note to Item 8 in Section D on Schedule B hereto, the entry into, and performance by each Loan Party of, the Debt Documents will not (a) violate any of the organizational documents of such Loan Party, (b) violate any law, rule, regulation, order, award or judgment applicable to such Loan Party, or (c) result in any breach of or constitute a default under, or result in the creation of any Lien on any of such Loan Party's property (except for Liens in favor of Agent, on behalf of itself and Lenders) pursuant to, any indenture, mortgage, deed of trust, bank loan, credit agreement, or other Material Agreement (as defined below) to which such Loan Party is a party. As used herein, " Material Agreement " means (i) any agreement or contract required to be filed by a Loan

Party with the Securities and Exchange Commission (" SEC ") pursuant to Item 601(b)(10) of Regulation S-K (other than (x) employment or compensation related agreements, including agreements relating to stock option grants to employees, consultants and directors, and (y) agreements that have been filed with the SEC but that have been assigned or terminated or as to which no Loan Party has any continuing obligations and is owed no further consideration or performance by the other parties thereto, in each case, prior to the date of this Agreement) and (ii) the Olympus Agreements (as defined below). A list of all Material Agreements as of the Closing Date is set forth on Schedule B hereto. As used herein, the " Olympus Agreements " means each of (1) that certain Joint Venture Agreement, dated as of November 4, 2005 (the " Joint Venture Agreement "), between Borrower and Olympus Corporation, a Japanese corporation (" Olympus "), (2) that certain Shareholders Agreement, dated as of November 4, 2005 (the " Shareholders Agreement "), between Borrower and Olympus, and (3) all other agreements, documents and instruments executed or delivered in connection with the Joint Venture Agreement or the Shareholders Agreement, in each case as the Joint Venture Agreement, the Shareholders Agreement and such other agreements, documents and instruments are amended, modified, restated or replaced from time to time in accordance with the terms and conditions of this Agreement.

5.4. **Litigation.** Except as disclosed in the Perfection Certificate or as disclosed to Agent pursuant to Section 6.2(d), there are no actions, suits, proceedings or investigations pending against or affecting any Loan Party before any court, federal, state, provincial, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any basis thereof, the outcome of which could reasonably be expected to have a Material Adverse Effect, or which questions the validity of the Debt Documents, or the other documents required thereby or any action to be taken pursuant to any of the foregoing, nor have any such actions, suits, proceedings or investigations been threatened in writing. As used in this Agreement, the term " Material Adverse Effect " means a material adverse effect on any of (a) the operations, business, assets, properties, or condition (financial or otherwise) of Borrower, individually, or the Loan Parties, collectively, (b) the ability of a Loan Party to perform any of its obligations under any Debt Document to which it is a party, (c) the legality, validity or enforceability of any Debt Document, (d) the rights and remedies of Agent or Lenders under any Debt Document or (e) the validity, perfection or priority of any Lien in favor of Agent, on behalf of itself and Lenders, on any of the Collateral.

5.5. **Financial Statements.** All financial statements delivered to Agent and Lenders pursuant to Section 6.3 have been prepared in accordance with GAAP (subject, in the case of unaudited financial statements, to the absence of footnotes and normal year end audit adjustments), and since the date of the most recent audited financial statement, no event has occurred which has had or could reasonably be expected to have a Material Adverse Effect. There has been no material adverse deviation from the most recent annual operating plan of Borrower delivered to Agent and Lenders in accordance with Section 6.3.

5.6. **Use of Proceeds.** The proceeds of the Term Loans shall be used to repay in full the GE Equipment Indebtedness and for working capital, capital expenditures and other general corporate purposes.

5.7. **Collateral.** Each Loan Party is, and will remain, the sole and lawful owner, and in possession of, the Collateral, and has the sole right and lawful authority to grant the security interest described in this Agreement. The Collateral is, and will remain, free and clear of all liens, security interests, claims and encumbrances of any kind whatsoever (each, a " Lien "), except for (a) Liens in favor of Agent, on behalf of itself and Lenders, to secure the Obligations, (b) Liens (i) with respect to the payment of taxes, assessments or other governmental charges or (ii) of suppliers, carriers, materialmen, warehousemen, workmen or mechanics and other similar Liens, in each case imposed by law and arising in the ordinary course of business, and securing amounts that are not yet delinquent (in the case of taxes) or not yet due (with respect to all cases described in the immediately preceding clauses (i) and (ii) other

than taxes) or that in any case are being contested in good faith by appropriate proceedings diligently conducted and with respect to which adequate reserves or other appropriate provisions are maintained on the books of the applicable Loan Party in accordance with GAAP and which do not involve, in the judgment of Agent, any risk of the sale, forfeiture or loss of any of the Collateral (a " Permitted Contest "), (c) Liens existing on the date hereof and set forth on Schedule B hereto, (d) Liens securing Indebtedness (as defined in Section 7.2 below) permitted under Section 7.2(c) below, provided that (i) such Liens exist prior to the acquisition of, or attach substantially simultaneous with, or within 20 days after the, acquisition, repair, improvement or construction of, such property financed by such Indebtedness and (ii) such Liens do not extend to any property of a Loan Party other than the property (and any attachments, additions, accessions thereto and proceeds thereof) acquired or built, or the improvements or repairs, financed by such Indebtedness, (e) licenses described in Section 7.3(c), (d) and (e) below and the rights and interests of licensors under licenses where a Loan Party is the licensee (to the extent such licenses are permitted under this Agreement), (f) zoning restrictions, easements, rights of way, encroachments or other restrictions on the use of, and other minor defects or irregularities in title with respect to, any real property of Borrower or its Subsidiaries so long as the same do not materially impair the use of such real property by Borrower or such Subsidiary, (g) purported Liens evidenced by the filing of precautionary UCC financing statements relating solely to operating leases of personal property entered into in the ordinary course of business, (h) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods, (i) pledges or cash deposits made in the ordinary course of business in connection with workers' compensation, unemployment insurance or other types of social security benefits (other than any Lien imposed by ERISA) that secure amounts that are not past due, (j) bankers' Liens or other set-off rights in favor of other financial institutions arising in connection with the Loan Parties' deposit and securities accounts held at such institutions, to the extent the same are permitted under the Account Control Agreement with respect to such deposit or securities accounts, (k) Liens arising from judgments, decrees or attachments that do not constitute an Event of Default hereunder, (l) Liens of Silicon Valley Bank on a Certificate of Deposit in an aggregate amount not to exceed $250,000 (the " SVB Certificate of Deposit ") issued by Silicon Valley Bank to Borrower to secure Borrower's reimbursement obligations with respect to (i) credit card, payroll and foreign exchange services provided by Silicon Valley Bank to Borrower and (ii) standby letters of credit issued by Silicon Valley Bank on behalf of Borrower, in each case to the extent permitted under Section 7.2(g) (such reimbursement obligations collectively hereinafter referred to as the " SVB Cash Management Obligations "), and (m) Liens of landlords (i) arising by statute or under any lease or related contractual obligation entered into in the ordinary course of business, (ii) on fixtures and movable tangible property located on the real property leased or subleased from such landlord, (iii) for amounts not yet due or that are being contested in good faith by appropriate proceedings diligently conducted, (iv) for which adequate reserves or other appropriate provisions are maintained on the books of such Loan Party in accordance with GAAP and (v) which Liens are subordinated to the security interests granted under Section 3.1 pursuant to an Access Agreement (all of such Liens described in the foregoing clauses (a) through (m) are called " Permitted Liens ").

5.8. **Compliance with Laws.**

(a) Each Loan Party is and will remain in compliance in all respects with all laws, statutes, ordinances, rules and regulations applicable to it, except to the extent that any such non-compliance, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

(b) Without limiting the generality of the immediately preceding clause (a), each Loan Party further agrees that it is and will remain in compliance in all material respects with all U.S. economic sanctions laws, Executive Orders and implementing regulations as promulgated by the U.S. Treasury Department's Office of Foreign Assets Control (" OFAC "), and all applicable anti-

money laundering and counter-terrorism financing provisions of the Bank Secrecy Act and the USA Patriot Act and all regulations issued pursuant to it. No Loan Party nor any of its subsidiaries, affiliates or joint ventures (A) is a person or entity designated by the U.S. Government on the list of the Specially Designated Nationals and Blocked Persons (the " SDN List ") with which a U.S. person or entity cannot deal with or otherwise engage in business transactions, (B) is a person or entity who is otherwise the target of U.S. economic sanctions laws such that a U.S. person or entity cannot deal or otherwise engage in business transactions with such person or entity; or (C) is controlled by (including without limitation by virtue of such person being a director or owning voting shares or interests), or acts, directly or indirectly, for or on behalf of, any person or entity on the SDN List or a foreign government that is the target of U.S. economic sanctions prohibitions such that the entry into, or performance under, this Agreement or any other Debt Document would be prohibited under U.S. law. The SDN List is maintained by OFAC and is available at: http://www.ustreas.gov/offices/enforcement/ofac/sdn/.

(c) Each Loan Party has met the minimum funding requirements of the United States Employee Retirement Income Security Act of 1974 (as amended, " ERISA ") with respect to any employee benefit plans subject to ERISA. No Loan Party is an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940. No Loan Party is engaged principally, or as one of the important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulations T, U and X of the Board of Governors of the Federal Reserve System (the " Federal Reserve Board ").

5.9. **Intellectual Property.** The Intellectual Property is and will remain free and clear of all Liens, except for Permitted Liens described in clauses (b)(i), (d) (to the extent consisting of software financed in connection with the acquisition of related equipment) and (e) of Section 5.7. No Loan Party has nor will it enter into any other agreement or financing arrangement in which such Loan Party has agreed that it will not grant a security interest in such Loan Party's Intellectual Property to any other party (other than agreements with licensors that prohibit such Loan Party from encumbering or assigning the license from such licensor or the Intellectual Property licensed from such licensor, but only to the extent that such prohibition is not enforceable under applicable law, including, without limitation, Sections 9-406, 9-407 and 9-408 of the UCC). Except as disclosed in the Perfection Certificate and except as disclosed to the Agent in writing after the Closing Date, as of the Closing Date and each date a Term Loan is advanced to Borrower, no Loan Party has any interest in, or title to any Intellectual Property that is (i) a registered trademark, or a trademark for which an application has been filed, (ii) a registered copyright, or a copyright for which an application has been filed, or (iii) a registered patent or a patent application. Upon filing of the Intellectual Property Security Agreements with the United States Patent and Trademark Office and the United States Copyright Office, as applicable, and the filing of appropriate financing statements, all action necessary or desirable to protect and perfect Agent's Lien on each Loan Party's Intellectual Property that is registered or for which an application has been filed shall have been duly taken. Each Loan Party owns or has rights to use all Intellectual Property material to the conduct of its business as now conducted by it or proposed to be conducted by it, without any actual or claimed infringement upon the rights of third parties.

5.10. **Solvency.** Both before and after giving effect to each Term Loan, the transactions contemplated herein, and the payment and accrual of all transaction costs in connection with the foregoing, each Loan Party is and will be Solvent. As used herein, " Solvent " means, with respect to a Loan Party on a particular date, that on such date (a) the fair value of the property of such Loan Party (including intangible assets and goodwill) is greater than the total amount of liabilities, including contingent liabilities, of such Loan Party; (b) the present fair salable value of the assets of such Loan Party is not less than the amount that will be required to pay the probable liability of such Loan Party on

its debts as they become absolute and matured; (c) such Loan Party does not intend to, and does not believe that it will, incur debts or liabilities beyond such Loan Party's ability to pay as such debts and liabilities mature; (d) such Loan Party is not engaged in a business or transaction, and is not about to engage in a business or transaction, for which such Loan Party's property would constitute an unreasonably small capital; and (e) such Loan Party is not "insolvent" within the meaning of Section 101(32) of the United States Bankruptcy Code (11 U.S.C. § 101, et. seq), as amended from time to time. The amount of contingent liabilities (such as litigation, guaranties and pension plan liabilities) at any time shall be computed as the amount that, in light of all the facts and circumstances existing at the time, represents the amount that can be reasonably be expected to become an actual or matured liability.

5.11. **Taxes; Pension.** All federal (and all material state and local) tax returns, reports and statements, including information returns, required by any governmental authority to be filed by each Loan Party and its Subsidiaries have been filed with the appropriate governmental authority and all federal (and all material state and local) taxes, levies, assessments and similar charges have been paid prior to the date on which any fine, penalty, interest or late charge may be added thereto for nonpayment thereof (or any such fine, penalty, interest, late charge or loss has been paid), excluding taxes, levies, assessments and similar charges or other amounts which are the subject of a Permitted Contest. Proper and accurate amounts have been withheld by each Loan Party from its respective employees for all periods in compliance with applicable laws and such withholdings have been timely paid to the respective governmental authorities. Each Loan Party has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and no Loan Party has withdrawn from participation in, or has permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of a Loan Party, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental authority.

5.12. **Full Disclosure.** Loan Parties hereby confirm that all of the information disclosed on the Perfection Certificate is true, correct and complete as of the date of this Agreement and as of the date of each Term Loan. No representation, warranty or other statement made by or on behalf of a Loan Party in any Debt Document or any document delivered by any Loan Party in connection therewith contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained therein, in light of the circumstances under which they were made, not misleading, it being recognized by Agent and Lenders that the projections and forecasts provided by Loan Parties in good faith and based upon reasonable and stated assumptions are not to be viewed as facts and that actual results during the period or periods covered by any such projections and forecasts may differ from the projected or forecasted results.

6. AFFIRMATIVE COVENANTS.

6.1. **Good Standing.** Each Loan Party shall maintain its and each of its Subsidiaries' existence and good standing in its jurisdiction of organization and maintain qualification in each jurisdiction in which the failure to so qualify could reasonably be expected to have a Material Adverse Effect. Each Loan Party shall maintain, and shall cause each of its Subsidiaries to maintain, in full force all licenses, approvals and agreements, the loss of which could reasonably be expected to have a Material Adverse Effect. " Subsidiary " means, with respect to a Loan Party, any entity the management of which is, directly or indirectly controlled by, or of which an aggregate of more than 50% of the outstanding voting capital stock (or other voting equity interest) is, at the time, owned or controlled, directly or indirectly by, such Loan Party or one or more Subsidiaries of such Loan Party, and, unless the contest otherwise requires each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower. For avoidance of doubt, Olympus-Cytori shall not be deemed to be a Subsidiary of Borrower for so long as Borrower does

not own or control, directly or indirectly, more than 50% of the outstanding voting capital stock of Olympus-Cytori.

6.2. **Notice to Agent and Lenders.** Loan Parties shall provide Agent and Lenders with (a) notice of any change in the accuracy of the Perfection Certificate or any of the representations and warranties provided in Section 5 above, immediately upon the occurrence of any such change, (b) notice of the occurrence of any Default or Event of Default, promptly (but in any event within 3 Business Days) after the date on which any executive officer of a Loan Party obtains knowledge of the occurrence of any such event, (c) copies of all statements, reports and notices made available generally by Borrower to its security holders and notice of all filings on forms 10K, 10Q and 8K filed with the SEC or any securities exchange or governmental authority exercising a similar function, promptly, but in any event within 5 Business Days of delivering or receiving such information to or from such persons, (d) a report of any legal actions pending or threatened against Borrower or any Subsidiary that could reasonably be expected to result in damages or costs to Borrower or any Subsidiary of $250,000 or more promptly, but in any event within 5 Business Days, upon receipt of notice thereof, (e) notice of any new applications or registrations that any Loan Party has made or filed in respect of any Intellectual Property or any material adverse change in status of any outstanding application or registration within 20 Business Days of such receipt of confirmation of the filing of such application or filing or receipt of notice of such change in status, and (f) notices of all material statements, reports and notices delivered to or by a Loan Party in connection with any Material Agreement promptly (but in any event within 5 Business Days) upon receipt thereof, and copies of the same upon Agent's request.

6.3. **Financial Statements.** If Borrower is a private company, it shall deliver to Agent and Lenders (a) unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements within 30 days of each month end, in a form acceptable to Agent and Lenders and certified by Borrower's president, chief executive officer or chief financial officer, and (b) its complete annual audited consolidated and, if available, consolidating financial statements prepared under GAAP and certified by an independent certified public accountant selected by Borrower and satisfactory to Agent and Lenders within 120 days of the fiscal year end or, if sooner, at such time as Borrower's Board of Directors receives the certified audit. If Borrower is a publicly held company, it shall deliver to Agent and Lenders quarterly unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements and annual audited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements, certified by a recognized firm of certified public accountants, within 5 days after the statements are required to be provided to the SEC, and if Agent requests, Borrower shall deliver to Agent and Lenders monthly unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements within 30 days after the end of each month. All such statements are to be prepared using GAAP (subject, in the case of unaudited financial statements, to the absence of footnotes and normal year end audit adjustments) and, if Borrower is a publicly held company, are to be in compliance with applicable SEC requirements. All financial statements delivered pursuant to this Section 6.3 shall be accompanied by a compliance certificate, signed by the chief financial officer of Borrower, in the form attached hereto as Exhibit D , and a management discussion and analysis that includes a comparison to budget for the respective fiscal period and a comparison of performance for such fiscal period to the corresponding period in the prior year. Borrower shall deliver to Agent and Lenders (i) as soon as available and in any event not later than 45 days after the end of each fiscal year of Borrower, an annual operating plan for Borrower, on a consolidated and, if available, consolidating basis, approved by the Board of Directors of Borrower, for the current fiscal year, in form and substance approved by the Board of Directors of Borrower and (ii) such budgets, sales projections, or other financial information as Agent or any Lender may reasonably request from time to time generally prepared by Borrower in the ordinary course of business.

6.4. **Insurance.** Borrower, at its expense, shall maintain, and shall cause each Subsidiary to maintain, insurance (including, without limitation, comprehensive general liability, hazard, and business interruption insurance) with respect to all of its properties and businesses (including, the Collateral), in such amounts and covering such risks as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated and in any event with deductible amounts, insurers and policies that shall be reasonably acceptable to Agent. Borrower shall deliver to Agent certificates of insurance evidencing such coverage, together with endorsements to such policies naming Agent as a lender loss payee or additional insured, as appropriate, in form and substance satisfactory to Agent. Each policy shall provide that coverage may not be canceled or altered by the insurer except upon 30 days prior written notice to Agent and shall not be subject to co-insurance . Borrower appoints Agent as its attorney-in-fact to make, settle and adjust all claims under and decisions with respect to Borrower's policies of insurance, and to receive payment of and execute or endorse all documents, checks or drafts in connection with insurance payments. Agent shall not act as Borrower's attorney-in-fact unless an Event of Default has occurred and is continuing. The appointment of Agent as Borrower's attorney in fact is a power coupled with an interest and is irrevocable until all of the Obligations are indefeasibly paid in full. Proceeds of insurance shall be applied, at the option of Agent, to repair or replace the Collateral or to reduce any of the Obligations if (a) such proceeds are received at any time that a Default or an Event of Default has occurred and is continuing or (b) no Default or Event of Default has occurred and is continuing at the time such proceeds are received but such proceeds exceed in the aggregate $250,000 in any calendar year.

6.5. **Taxes.** Borrower shall, and shall cause each Subsidiary to, timely file all federal (and all material state and local) tax reports and pay and discharge all federal (and all material state and local) taxes, assessments and governmental charges or levies imposed upon it, or its income or profits or upon its properties or any part thereof, before the same shall be in default and before the date on which penalties attach thereto, except to the extent such taxes, assessments and governmental charges or levies are the subject of a Permitted Contest.

6.6. **Agreement with Landlord/Bailee.** Unless otherwise agreed to by the Agent in writing, and except with respect to Permitted Locations (as defined below), each Loan Party shall obtain and maintain such Access Agreement(s) with respect to any Collateral Location as Agent may require. With respect to Collateral Locations (other than locations of the type described in clauses (ii) and (iii) of the definition of Permitted Location below) for which the Loan Parties have not delivered a fully executed Access Agreement to Agent, upon Agent's request Borrower shall deliver to Agent evidence in form reasonably satisfactory to Agent that rental payments owing by any Loan Party were made and a certification that no default or event of default exists under such Loan Party's the lease or leases for such Collateral Locations. Notwithstanding anything in this Agreement to the contrary, the failure to obtain a fully executed Access Agreement with respect to a Collateral Location shall not constitute a Default or Event of Default hereunder. As used herein, "Permitted Locations" means the following locations: (i) facilities located outside of the United States at which a Loan Party maintains Celution Systems (as defined below) in such Loan Party's ordinary course of business, (ii) locations where Celution Systems may be temporarily located by a Loan Party for use in clinical trials by an unaffiliated third party in such Loan Party's ordinary course of business, (iii) locations where Celution Systems may be temporarily located by a Loan Party with physicians for demonstration, testing and product development purposes in such Loan Party's ordinary course of business, and (iv) locations where Collateral may be temporarily located by a Loan Party for maintenance or repair in such Loan Party's ordinary course of business; provided, that with respect to the locations described in the immediately preceding clauses (i) through and including (iv), the book value of all Collateral at such locations shall at no time be greater than $200,000 per location or $750,000 in the aggregate. As used herein, "Celution Systems" means the family of products (600, 700, 800, 900/MB & next generation Celution device), which processes patients' cells at the bedside in real time separating a therapeutic dose of stem and regenerative cells from a patient's own fat tissue, including

a central processing device, a related single-use consumable used for each patient specific procedure, and supportive procedural components.

6.7. **Protection of Intellectual Property.** Each Loan Party shall take all necessary actions to: (a) protect, defend and maintain the validity and enforceability of its Intellectual Property to the extent material to the conduct of its business now conducted by it or proposed to be conducted by it, (b) promptly advise Agent and Lenders in writing of material infringements of its Intellectual Property and, should the Intellectual Property be material to such Loan Party's business, take all appropriate actions to enforce its rights in its Intellectual Property against infringement, misappropriation or dilution and to recover any and all damages for such infringement, misappropriation or dilution, (c) not allow any Intellectual Property material to such Loan Party's business to be abandoned, forfeited or dedicated to the public without Agent's written consent, except that a Loan Party may abandon or forfeit registrations with respect to such Intellectual Property in jurisdictions outside the United States where, in the good faith business judgment of Borrower's board of directors, the value of the registrations of such Intellectual Property is outweighed by the cost of maintaining such registrations in such jurisdiction, and (d) notify Agent promptly, but in any event within 10 Business Days, if it knows or has reason to know that any application or registration relating to any patent, trademark or copyright (now or hereafter existing) material to its business may become abandoned or dedicated, or if any adverse determination or development (including the institution of, or any such determination or development in, any proceeding in the United States Patent and Trademark Office, the United States Copyright Office or any court) regarding such Loan Party's ownership of any Intellectual Property material to its business, its right to register the same, or to keep and maintain the same. Each Loan Party shall remain liable under each of its Intellectual Property licenses pursuant to which it is a licensee (" Licenses ") to observe and perform all of the conditions and obligations to be observed and performed by it thereunder, to the extent that such License is material to the Loan Parties' business. None of Agent or any Lender shall have any obligation or liability under any such License by reason of or arising out of this Agreement, the granting of a Lien, if any, in such License or the receipt by Agent (on behalf of itself and Lenders) of any payment relating to any such License. None of Agent or any Lender shall be required or obligated in any manner to perform or fulfill any of the obligations of any Loan Party under or pursuant to any License, or to make any payment, or to make any inquiry as to the nature or the sufficiency of any payment received by it or the sufficiency of any performance by any party under any License, or to present or file any claims, or to take any action to collect or enforce any performance or the payment of any amounts which may have been assigned to it or which it may be entitled at any time or times.

6.8. **Special Collateral Covenants.**

(a) Each Loan Party shall remain in possession of its respective Collateral solely at (1) the location(s) specified on the Perfection Certificate, (2) Permitted Locations and (3) locations where portable goods of a deminimis nature (such as laptops, phones and other similar equipment) may be located with employees or consultants of a Loan Party in such Loan Party's ordinary course of business; except that Agent, on behalf of itself and Lenders, shall have the right to possess (i) any chattel paper or instrument that constitutes a part of the Collateral, (ii) any other Collateral in which Agent's security interest (on behalf of itself and Lenders) may be perfected only by possession and (iii) any Collateral after the occurrence of an Event of Default in accordance with this Agreement and the other Debt Documents.

(b) Each Loan Party shall (i) use the Collateral only in its trade or business, (ii) maintain all of the Collateral in good operating order and repair, normal wear and tear excepted, and (iii) use and maintain the Collateral only in compliance with manufacturers' recommendations or prudent industry practices and all applicable laws, except where a failure to do so could not reasonably be expected to have a Material Adverse Effect.

(c) Agent and Lenders do not authorize and each Loan Party agrees it shall not (i) part with possession of any of the Collateral (except in accordance with Section 6.8(a) above, to Agent (on behalf of itself and Lenders), or for a Permitted Disposition), or (ii) remove any of the Collateral from the continental United States except as provided in clause (i) of the definition of "Permitted Locations" in Section 6.6.

(d) Each Loan Party shall pay promptly when due all federal (and all material state and local) taxes, license fees, assessments and public and private charges levied or assessed on any of the Collateral, on its use, or on this Agreement or any of the other Debt Documents, other than in connection with a Permitted Contest. At its option, Agent may, after good faith consultation with Borrower (unless a Default or an Event of Default has occurred and is continuing), discharge taxes, Liens, security interests or other encumbrances at any time levied or placed on the Collateral and may pay for the maintenance, insurance and preservation of the Collateral and effect compliance with the terms of this Agreement or any of the other Debt Documents. Each Loan Party agrees to reimburse Agent, on demand, all costs and expenses incurred by Agent in connection with such payment or performance and agrees that such reimbursement obligation shall constitute Obligations.

(e) Each Loan Party shall, at all times, keep accurate and complete records of the Collateral.

(f) Each Loan Party agrees and acknowledges that any third person who may at any time possess all or any portion of the Collateral shall be deemed to hold, and shall hold, the Collateral as the agent of, and as pledge holder for, Agent (on behalf of itself and Lenders). Agent may at any time give notice to any third person described in the preceding sentence that such third person is holding the Collateral as the agent of, and as pledge holder for, Agent (on behalf of itself and Lenders).

(g) Each Loan Party shall, during normal business hours, and in the absence of a Default or an Event of Default, upon one Business Day's prior notice, as frequently as Agent determines to be appropriate: (i) provide Agent (who may be accompanied by representatives of any Lender) and any of its officers, employees and agents access to the properties, facilities, advisors and employees (including officers) of each Loan Party and to the Collateral, (ii) permit Agent (who may be accompanied by representatives of any Lender), and any of its officers, employees and agents, to inspect, audit and make extracts from any Loan Party's books and records (or at the request of Agent, deliver true and correct copies of such books and records to Agent), and (iii) permit Agent (who may be accompanied by representatives of any Lender), and its officers, employees and agents, to inspect, review, evaluate and make test verifications and counts of the Collateral of any Loan Party; provided , however, that absent the occurrence and continuance of a Default or Event of Default, Borrower shall only be obligated to reimburse Agent for costs and expenses under Section 10.5 with respect to four (4) such inspections and audits during any calendar year. Upon Agent's request, each Loan Party will promptly notify Agent in writing of the location of any Collateral (excluding the portable goods of a deminimis nature described in Section 6.8(a)(3)). If a Default or Event of Default has occurred and is continuing or if access is necessary to preserve or protect the Collateral as determined by Agent, each such Loan Party shall provide such access to Agent and to each Lender at all times and without advance notice. Each Loan Party shall make available to Agent and its auditors or counsel, as quickly as is possible under the circumstances, originals or copies of all books and records that Agent or such Lender may reasonably request. Notwithstanding any other provision of this Agreement or any other Debt Document, so long as no Default or Event of Default then exists, each Loan Party shall have the right to deny or restrict the Agent, the Lenders and their

respective representatives, access to highly confidential and proprietary scientific data and specifications, in each case, solely to the extent pertaining to Celution Systems.

6.9. **MacroPore Dissolution.** On or prior to November 13, 2008, Borrower shall deliver to Agent, in form and substance reasonably satisfactory to Agent, evidence of the dissolution of MacroPore Biosurgery, Inc., a Delaware corporation (such dissolution, the " MacroPore Dissolution ").

6.10. **Further Assurances.** Each Loan Party shall, upon request of Agent, furnish to Agent such further information, execute and deliver to Agent such documents and instruments (including, without limitation, UCC financing statements) and shall do such other acts and things as Agent may at any time reasonably request relating to the perfection or protection of the security interest created by this Agreement or for the purpose of carrying out the intent of this Agreement and the other Debt Documents.

7. NEGATIVE COVENANTS

7.1. **Liens.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, (a) create, incur, assume or permit to exist any Lien on any Collateral, including, without limitation, any Intellectual Property, except Permitted Liens or (b) become a party to any agreement that would prohibit the granting of a security interest in such Loan Party's Collateral to Agent (other than agreements with licensors that prohibit such Loan Party or Subsidiary from encumbering or assigning the license from such licensor or the Intellectual Property licensed from such licensor, but only to the extent that such prohibition is not enforceable under applicable law, including, without limitation, Sections 9-406, 9-407 and 9-408 of the UCC).

7.2. **Indebtedness.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, directly or indirectly create, incur, assume, permit to exist, guarantee or otherwise become or remain directly or indirectly liable with respect to, any Indebtedness (as hereinafter defined), except for (a) the Obligations, (b) Indebtedness existing on the date hereof and set forth on Schedule B to this Agreement, (c) Indebtedness consisting of capitalized lease obligations and purchase money Indebtedness, in each case incurred by Borrower or any of its Subsidiaries to finance the acquisition, repair, improvement or construction of fixed or capital assets of such person, provided that (i) the aggregate outstanding principal amount of all such Indebtedness does not exceed $250,000 at any time and (ii) the principal amount of such Indebtedness does not exceed the lower of the cost or fair market value (plus taxes, shipping and installation expenses) of the property so acquired or built or of such repairs or improvements financed with such Indebtedness (each measured at the time of such acquisition, repair, improvement or construction is made), (d) obligations under any foreign exchange contract, currency swap agreement, interest rate swap, cap or collar agreement or other similar agreement or arrangement entered into by a Loan Party in the ordinary course of business and designed to alter the risks arising from fluctuations in currency values or interest rates, but not for speculative purposes, (e) guaranties by one or more Loan Parties of obligations or liabilities of other Loan Parties, so long as no Default or Event of Default would occur either before or after giving effect to any such guaranty, (f) Indebtedness incurred by Foreign Subsidiaries from third party financial institutions in an aggregate amount not in excess of $250,000; (g) Indebtedness consisting of SVB Cash Management Obligations owing by Borrower to Silicon Valley Bank in an amount not to exceed $250,000 in the aggregate at any time; and (h) Indebtedness owing by any Loan Party to another Loan Party, provided that (i) each Loan Party shall have executed and delivered to each other Loan Party a demand note (each, an " Intercompany Note ") to evidence such intercompany loans or advances owing at any time by each Loan Party to the other Loan Parties, which Intercompany Note shall be in form and substance reasonably satisfactory to Agent and shall be pledged and delivered to Agent pursuant to the Pledge Agreement as additional Collateral for the Obligations, (ii) any and all Indebtedness of any Loan Party to another Loan Party shall be subordinated to the Obligations pursuant to the subordination terms set forth in each Intercompany Note, and (iii) no Default or Event of Default

would occur either before or after giving effect to any such Indebtedness. The term " Indebtedness " means, with respect to any person, at any date, without duplication, (i) all obligations of such person for borrowed money, (ii) all obligations of such person evidenced by bonds, debentures, notes or other similar instruments, or upon which interest payments are customarily made, (iii) all obligations of such person to pay the deferred purchase price of property or services, but excluding obligations to trade creditors incurred in the ordinary course of business and not past due by more than 90 days, (iv) all capital lease obligations of such person, (v) the principal balance outstanding under any synthetic lease, tax retention operating lease, off-balance sheet loan or similar off-balance sheet financing product, (vi) all obligations of such person to purchase securities (or other property) which arise out of or in connection with the issuance or sale of the same or substantially similar securities (or property), (vii) all contingent or non-contingent obligations of such person to reimburse any bank or other person in respect of amounts paid under a letter of credit or similar instrument, (viii) all equity securities of such person subject to repurchase or redemption otherwise than at the sole option of such person, (ix) all "earnouts" and similar payment obligations of such person, (x) all indebtedness secured by a Lien on any asset of such person, whether or not such indebtedness is otherwise an obligation of such person, (xi) all obligations of such person under any foreign exchange contract, currency swap agreement, interest rate swap, cap or collar agreement or other similar agreement or arrangement designed to alter the risks of that person arising from fluctuations in currency values or interest rates, in each case whether contingent or matured, and (xii) all obligations or liabilities of others guaranteed by such person.

7.3. **Dispositions.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, convey, sell, rent, lease, sublease, mortgage, license, transfer or otherwise dispose of (collectively, " Transfer ") any of the Collateral or any Intellectual Property, except for the following (collectively, " Permitted Dispositions "): (a) sales of inventory in the ordinary course of business; (b) dispositions by a Loan Party or any of its Subsidiaries of tangible assets for cash and fair value that are no longer used or useful in the business of such Loan Party or such Subsidiary so long as (i) no Default or Event of Default exists at the time of such disposition or would be caused after giving effect thereto and (ii) the fair market value of all such assets disposed of does not exceed $75,000 in any calendar year; (c) non-exclusive licenses for the use of any Loan Party's Intellectual Property in the ordinary course of business; (d) exclusive licenses for the use of any Loan Party's Intellectual Property in the ordinary course of business, so long as, with respect to each such exclusive license, (i) no Default or Event of Default exists at the time of such Transfer, (ii) the license constitutes an arms-length transaction made in connection with a bona fide corporate collaboration, distribution agreement or similar arrangement in the ordinary course of business and the terms of which, on their face, do not provide for a sale or assignment of any Intellectual Property, (iii) the applicable Loan Party delivers 30 days prior written notice and a brief summary of the terms of the license to Agent, (iv) the applicable Loan Party delivers to Agent copies of the final executed licensing documents in connection with the license promptly upon consummation of the license, and (v) all royalties, milestone payments or other proceeds arising from the licensing agreement are paid to a deposit account that is governed by an Account Control Agreement; (e) licenses of Intellectual Property pursuant to the terms and conditions of the Olympus Agreements as they exist on the Closing Date; (f) the sale by Borrower of all or substantially all of the assets related to the SurgiWrap Thin Film business, so long as, with respect to such sale of assets, (i) no Default or Event of Default exists at the time of such sale, (ii) such sale constitutes an arms-length transaction with a non-affiliate, (iii) Borrower delivers to Agent copies of the final executed sale agreement upon consummation of the sale, (iv) Borrower shall receive net cash proceeds of at least $1,000,000 from such sale and (v) all such cash proceeds are paid to a deposit account that is governed by an Account Control Agreement; and (g) the MacroPore Dissolution.

7.4. **Change in Name, Location or Executive Office; Change in Business; Change in Fiscal Year.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, (a) change its name or its state of organization without the prior written consent of Agent (such consent not to be unreasonably withheld), (b) relocate its chief executive office without 30 days prior written notification to

Agent, (c) engage in any business other than or reasonably related or incidental to the businesses currently engaged in by the Loan Parties and their Subsidiaries, (d) cease to conduct business substantially in the manner conducted by the Loan Parties and their Subsidiaries as of the date of this Agreement or (e) change its fiscal year end.

7.5. **Mergers or Acquisitions.** No Loan Party shall merge or consolidate, and no Loan Party shall permit any of its Subsidiaries to merge or consolidate, with or into any other person or entity (other than mergers of a Subsidiary into a Loan Party in which such Loan Party is the surviving entity, or mergers of a Loan Party (other than Borrower) into another Loan Party) or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another person or entity or all or substantially all of the assets constituting any line of business, division, branch, operating division or other unit operation of another person or entity. Notwithstanding the foregoing, Borrower may acquire all or substantially all of the assets or stock of another business entity (such business entity, the " Target ") so long as (a) Agent and each Lender shall receive at least twenty (20) Business Days' prior written notice of such proposed acquisition, which notice shall include a reasonably detailed description of such proposed acquisition; (b) such acquisition shall only involve assets located in the United States and comprise a business, or those assets of a business, substantially of the type engaged in by Borrower or its Subsidiaries and which business would not subject Agent or any Lender to regulatory or third party approvals in connection with the exercise of its rights and remedies under this Agreement or any other Debt Documents other than approvals applicable to the exercise of such rights and remedies with respect to Borrower prior to such acquisition; (c) such acquisition shall be consensual and shall have been approved by Target's board of directors or similar governing body (as applicable); (d) the purchase price paid and/or payable in cash or other property (other than capital stock) in connection with all acquisitions (including all transaction costs and all Indebtedness, liabilities and contingent obligations incurred or assumed in connection therewith or otherwise reflected in a consolidated balance sheet of Borrower and Target) shall not exceed $1,000,000 during the term of this Agreement; (e) with respect to an acquisition paid for in whole or in part with capital stock, such acquisition shall not result in any decrease in the Tangible Net Worth (as defined below) of the Loan Parties; (f) the business and assets acquired in such acquisition shall be free and clear of all Liens (other than Permitted Liens); (g) at or prior to the closing of any acquisition, Agent will be granted a first priority perfected Lien (subject to Permitted Liens), for the ratable benefit of Agent and Lenders, in all assets or stock acquired pursuant thereto and Borrower shall have executed such documents and taken such actions as may be required by Agent in connection therewith; (h) at the time of such acquisition and after giving effect thereto, no Default or Event of Default has occurred and is continuing; and (i) immediately after the consummation of such acquisition and after giving effect thereto, Borrower shall have unrestricted balance sheet cash and Cash Equivalents in one or more deposit accounts or securities accounts over which Agent has obtained control under Section 7.10 of not less than the product of (x) negative twelve (-12) times (y) the Cash Burn Amount (as such term is defined in Section 7.12 below) based on pro forma financial statements that are delivered to and approved by Agent and Lenders. "Tangible Net Worth" means, on any date, the consolidated total assets of the Loan Parties and their Subsidiaries minus , (x) any amounts attributable to (1) goodwill, (2) intangible items such as unamortized debt discount and expense, patents, trade and service marks and names, copyrights and research and development expenses except prepaid expenses, and (3) reserves not already deducted from assets, and (y) the obligations that should, under GAAP, be classified as liabilities on Borrower's consolidated balance sheet, including all Indebtedness.

7.6. **Restricted Payments.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, (a) declare or pay any dividends (other than the payment of dividends to Borrower and the payment of dividends of a Subsidiary of a Loan Party (other than Borrower) to such Loan Party) or make any other distribution or payment on account of or redeem, retire, defease or purchase any of its capital stock (including without limitation any repurchase of any shares of Olympus-Cytori, whether pursuant to Section 8.3 of the Shareholders Agreement or otherwise), (b) purchase, redeem, defease or prepay any

principal of, premium, if any, interest or other amount payable in respect of any Indebtedness prior to its scheduled maturity, (c) make any payment in respect of management fees or consulting fees (or similar fees) to any equityholder or other affiliate of Borrower, or (d) be a party to or bound by an agreement that restricts a Subsidiary from paying dividends or otherwise distributing property to Borrower; provided , however, the foregoing shall not restrict: (i) the declaration or payment of dividends, or the making of distributions, payable solely in Borrower's capital stock, (ii) the conversion of debt securities into capital stock, or (iii) the issuance of capital stock upon the exercise or conversion of warrants or options.

7.7. **Investments.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, directly or indirectly (a) acquire or own, or make any loan, advance or capital contribution (an " Investment ") in or to any person or entity, (b) acquire or create any Subsidiary (other than in connection with an acquisition permitted under the terms and conditions of Section 7.5), or (c) engage in any joint venture or partnership with any other person or entity, other than: (i) Investments existing on the date hereof and set forth on Schedule B to this Agreement, (ii) Investments in cash and Cash Equivalents (as defined below), (iii) cash Investments by Borrower in Olympus-Cytori in an aggregate amount in any calendar year not to exceed $350,000 for the purpose paying operating expenses of Olympus-Cytori in the ordinary course of its business, (iv) Investments consisting of extensions of credit in the nature of accounts receivable or notes receivable arising from the grant of trade credit in the ordinary course of business, and Investments received in satisfaction or partial satisfaction thereof from financially troubled account debtors to the extent reasonably necessary in order to prevent or limit loss; (v) acquisitions permitted under the terms and conditions of Section 7.5, (vi) Investments by a Loan Party in any other Loan Party; (vi) loans or advances to employees of Borrower or any of its Subsidiaries to finance travel, entertainment and relocation expenses and other ordinary business purposes in the ordinary course of business as presently conducted, provided that the aggregate outstanding principal amount of all loans and advances permitted pursuant to this clause (vi) shall not exceed $100,000 at any time; (vii) Investments in joint ventures or strategic alliances in the ordinary course of the Loan Parties' business consisting of the licensing of technology, the development of technology or the providing of support, provided that (I) any cash Investments by the Loan Parties do not exceed $100,000 in the aggregate in any fiscal year and (II) no Default or Event of Default exists at the time of such Investment or would be caused after giving effect thereto, and (viii) Investments pursuant to Borrower's investment policy attached hereto as Exhibit G (but not any changes to such policy unless approved by Agent) (collectively, the " Permitted Investments "). The term " Cash Equivalents " means (v) any readily-marketable securities (i) issued by, or directly, unconditionally and fully guaranteed or insured by the United States federal government or (ii) issued by any agency of the United States federal government the obligations of which are fully backed by the full faith and credit of the United States federal government, (w) any readily-marketable direct obligations issued by any other agency of the United States federal government, any state of the United States or any political subdivision of any such state or any public instrumentality thereof, in each case having a rating of at least "A-1" from S&P or at least "P-1" from Moody's, (x) any commercial paper rated at least " A-1 " by S&P or " P-1 " by Moody's and issued by any entity organized under the laws of any state of the United States, (y) any U.S. dollar-denominated time deposit, insured certificate of deposit, overnight bank deposit or bankers' acceptance issued or accepted by (i) Agent or (ii) any commercial bank that is (A) organized under the laws of the United States, any state thereof or the District of Columbia, (B) "adequately capitalized" (as defined in the regulations of its primary federal banking regulators) and (C) has Tier 1 capital (as defined in such regulations) in excess of $250,000,000 or (z) shares of any United States money market fund that (i) has substantially all of its assets invested continuously in the types of investments referred to in clause (v) , (w) , (x) or (y) above with maturities as set forth in the proviso below, (ii) has net assets in excess of $500,000,000 and (iii) has obtained from either S&P or Moody's the highest rating obtainable for money market funds in the United States; provided , however , that the maturities of all obligations specified in any of clauses (v) , (w) , (x) and (y) above shall not exceed 365 days. For the avoidance of doubt, "Cash Equivalents" does not include (and each Loan Party is prohibited from purchasing or purchasing participations in) any auction rate securities or other corporate

or municipal bonds with a long-term nominal maturity for which the interest rate is reset through a Dutch auction.

7.8. **Transactions with Affiliates.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, directly or indirectly enter into or permit to exist any transaction with any Affiliate (as defined below) of a Loan Party or any Subsidiary of a Loan Party except for (a) sales of equity securities of Borrower in bona fide equity financings for the purpose of raising capital; (b) Investments by a Loan Party in its Subsidiaries to the extent permitted under Section 7.7; (c) transactions among Loan Parties; and (d) transactions that are in the ordinary course of such Loan Party's or such Subsidiary's business, upon fair and reasonable terms that are no more favorable to such Affiliate than would be obtained in an arm's length transaction. As used herein, " Affiliate " means, with respect to a Loan Party or any Subsidiary of a Loan Party, (i) each person that, directly or indirectly, owns or controls 5% or more of the stock or membership interests having ordinary voting power in the election of directors or managers of such Loan Party or such Subsidiary, and (ii) each person that controls, is controlled by or is under common control with such Loan Party or such Subsidiary.

7.9. **Compliance.** No Loan Party shall, and no Loan Party shall permit any of its Subsidiaries to, (a) fail to comply with the laws and regulations described in clauses (b) or (c) of Section 5.8 herein, (b) use any portion of the Term Loans to purchase or carry margin stock (within the meaning of Regulation U of the Federal Reserve Board) or (c) fail to comply in any material respect with, or violate in any material respect any other law or regulation applicable to it.

7.10. **Deposit Accounts and Securities Accounts.** No Loan Party shall directly or indirectly maintain or establish any deposit account or securities account, unless Agent, the applicable Loan Party or Loan Parties and the depository institution or securities intermediary at which the account is or will be maintained enter into a deposit account control agreement or securities account control agreement, as the case may be, in form and substance satisfactory to Agent (an " Account Control Agreement ") (which agreement shall provide, among other things, that (i) such depository institution or securities intermediary has no rights of setoff or recoupment or any other claim against such deposit or securities account (except as agreed to by Agent), other than for payment of its service fees and other charges directly related to the administration of such account and for returned checks or other items of payment, and (ii) such depository institution or securities intermediary shall comply with all instructions of Agent without further consent of such Loan Party or Loan Parties, as applicable, including, without limitation, an instruction by Agent to comply exclusively with instructions of the Agent with respect to such account (such notice, a " Notice of Exclusive Control ")), prior to or concurrently with the establishment of such deposit account or securities account (or in the case of any such deposit account or securities account maintained as of the date hereof, on or before the Closing Date). Agent may only give a Notice of Exclusive Control with respect to any deposit account or securities account at any time at which an Event of Default has occurred and is continuing. Notwithstanding the provisions of this Section 7.10, Borrower shall designate one or more dedicated deposit accounts to be used exclusively for payroll or withholding tax purposes, and such dedicated deposit accounts shall not be subject to any Account Control Agreement.

7.11. **Amendments to Other Agreements** . No Loan Party shall amend, modify or waive any provision of (a) any Material Agreement or (b) any of such Loan Party's organizational documents, in each case, without the prior written consent of Agent and the Requisite Lenders unless the net effect of such amendment, modification or waiver is not adverse to any Loan Party, Agent or Lenders.

7.12. **Financial Covenants** .

(a) Borrower shall at all times have unrestricted balance sheet cash and Cash Equivalents in one or more deposit accounts or securities accounts over which Agent has obtained

control under Section 7.10 of not less than the product of (i) negative three (-3) times (ii) the Cash Burn Amount at such time; provided, however, that at the time of requesting the Subsequent Term Loan and at all times after the advance of the Subsequent Term Loan, Borrower shall at all times have unrestricted balance sheet cash and Cash Equivalents in one or more deposit accounts or securities accounts over which Agent has obtained control under Section 7.10 of not less than the product of (i) negative six (-6) times (ii) the Cash Burn Amount at such time.

(b) Borrower shall at all times have unrestricted balance sheet cash and Cash Equivalents in one or more deposit accounts or securities accounts maintained with Silicon Valley Bank and over which Agent has obtained control under Section 7.10 of not less than $1,000,000; provided , that any funds in such deposit or securities accounts maintained with Silicon Valley Bank under this clause (b) shall be included for purposes of determining compliance with clause (a) above.

(c) As used in this Agreement, " Cash Burn Amount " means, with respect to Borrower and its consolidated Subsidiaries, as of any date of determination and based on the financial statements most recently delivered to Agent and the Lenders in accordance with this Agreement, the difference between:

(1) the product of (i) the sum of, without duplication, (A) net income (loss), plus (B) depreciation, amortization and other non-cash charges (excluding accruals for cash expenses made in the ordinary course of business), minus (C) non-financed capital expenditures, minus (D) non-cash revenue, in each case of clauses (A), (B), (C) and (D), for the immediately preceding six month period on a trailing basis, divided by (ii) six,

minus

(2) the product of (i) the current portion of interest bearing liabilities due and payable in the immediately succeeding six months divided by (ii) six.

8. DEFAULT AND REMEDIES.

8.1. **Events of Default.** Loan Parties shall be in default under this Agreement and each of the other Debt Documents if (each of the following, an " Event of Default "):

(a) Borrower shall fail to pay (i) any principal when due, or (ii) any interest, fees or other Obligations (other than as specified in clause (i)) within a period of 3 days after the due date thereof (other than on any Applicable Term Loan Maturity Date);

(b) any Loan Party breaches any of its obligations under Section 6.1 (solely as it relates to maintaining its existence), Section 6.2, Section 6.3, Section 6.4 or Article 7;

(c) any Loan Party breaches any of its other obligations under any of the Debt Documents and fails to cure such breach within 30 days after the earlier of (i) the date on which an executive officer (including, without limitation, a president, chief executive officer, chief financial officer, secretary, vice president or general counsel) of such Loan Party becomes aware, or through the exercise of reasonable diligence should have become aware, of such failure and (ii) the date on which notice shall have been given to Borrower from Agent;

(d) any warranty, representation or statement made or deemed made by or on behalf of any Loan Party in any of the Debt Documents in connection with any of the Obligations shall be false or misleading in any material respect when made or deemed made;

(e) any of the Collateral with a value, individually or in the aggregate, in excess of $50,000 is subjected to attachment, execution, levy, seizure or confiscation in any legal proceeding or otherwise, or if any legal or administrative proceeding is commenced against any Loan Party or any of the Collateral, which subjects any of the Collateral with a value, individually or in the aggregate, in excess of $50,000 to a material risk of attachment, execution, levy, seizure or confiscation and no bond is posted or protective order obtained to negate such risk;

(f) one or more judgments, orders or decrees shall be rendered against any Loan Party or any Subsidiary of a Loan Party that exceeds by more than $100,000 any insurance coverage applicable thereto (to the extent the relevant insurer has been notified of such claim and has not denied coverage therefor) and either (i) enforcement proceedings shall have been commenced by any creditor upon any such judgment, order or decree or (ii) such judgment, order or decree shall not have been vacated or discharged for a period of 30 consecutive days and there shall not be in effect (by reason of a pending appeal or otherwise) any stay of enforcement thereof;

(g) (i) any Loan Party or any Subsidiary of a Loan Party shall generally not pay its debts as such debts become due, shall admit in writing its inability to pay its debts generally, shall make a general assignment for the benefit of creditors, or shall cease doing business as a going concern, (ii) any proceeding shall be instituted by or against any Loan Party or any Subsidiary of a Loan Party seeking to adjudicate it a bankrupt or insolvent or seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief, composition of it or its debts or any similar order, in each case under any law relating to bankruptcy, insolvency or reorganization or relief of debtors or seeking the entry of an order for relief or the appointment of a custodian, receiver, trustee, conservator, liquidating agent, liquidator, other similar official or other official with similar powers, in each case for it or for any substantial part of its property and, in the case of any such proceedings instituted against (but not by or with the consent of) such Loan Party or such Subsidiary, either such proceedings shall remain undismissed or unstayed for a period of 45 days or more or any action sought in such proceedings shall occur or (iii) any Loan Party or any Subsidiary of a Loan Party shall take any corporate or similar action or any other action to authorize any action described in clause (i) or (ii) above;

(h) a Material Adverse Effect shall have occurred;

(i) (i) any provision of any Debt Document shall fail to be valid and binding on, or enforceable against, a Loan Party party thereto, or (ii) any Debt Document purporting to grant a security interest to secure any Obligation shall fail to create a valid and enforceable security interest on any Collateral purported to be covered thereby or such security interest shall fail or cease to be a perfected Lien with the priority required in the relevant Debt Document, or any Loan Party shall state in writing that any of the events described in clause (i) or (ii) above shall have occurred;

(j) (i) any Loan Party or any Subsidiary of a Loan Party defaults under any Olympus Agreement or any other Material Agreement (after any applicable grace period contained therein), (ii) (A) any Loan Party or any Subsidiary of a Loan Party fails to make (after any applicable grace period) any payment when due (whether due because of scheduled maturity, required prepayment provisions, acceleration, demand or otherwise) on any Indebtedness (other than the Obligations) of such Loan Party or such Subsidiary having an aggregate principal

amount (including undrawn committed or available amounts and including amounts owing to all creditors under any combined or syndicated credit arrangement) of more than $300,000 (" Material Indebtedness "), (B) any other event shall occur or condition shall exist under any contractual obligation relating to any such Material Indebtedness, if the effect of such event or condition is to accelerate, or to permit the acceleration of (without regard to any subordination terms with respect thereto), the maturity of such Material Indebtedness or (C) any such Material Indebtedness shall become or be declared to be due and payable, or be required to be prepaid, redeemed, defeased or repurchased (other than by a regularly scheduled required prepayment), prior to the stated maturity thereof, or (iii) Borrower or any Subsidiary defaults (beyond any applicable grace period) under any obligation for payments due under any lease agreement that meets the criteria for the requirement of an Access Agreement under Section 6.6; or

(k) (i) any of the chief executive officer, the chief financial officer or the president of Borrower as of the date hereof shall cease to be involved in the day to day operations (including, with respect to the chief scientific officer, research development) or management of the business of Borrower, and a successor of such officer reasonably acceptable to the Requisite Lenders is not appointed on terms reasonably acceptable to the Requisite Lenders within 120 days of such cessation or involvement, (ii) the acquisition, directly or indirectly, by any person or group (as such term is used in Section 13(d)(3) of the Securities Exchange Act of 1934) of more than thirty-five percent (35%) of the voting power of the voting stock of Borrower by way of merger or consolidation or otherwise, (iii) during any period of twelve consecutive calendar months, individuals who at the beginning of such period constituted the board of directors of Borrower (together with any new directors whose election by the board of directors of Borrower or whose nomination for election by the stockholders of Borrower was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of such period or whose election or nomination for election was previously so approved) cease for any reason other than death or disability to constitute a majority of the directors then in office, or (iv) Borrower ceases to own and control, directly or indirectly, all of the economic and voting rights associated with the outstanding voting capital stock (or other voting equity interest) of each of its Subsidiaries, other than in connection with a transaction expressly permitted by the terms of this Agreement; or

(l) Any event shall occur whereby Olympus obtains the right under Section 8.3 of the Shareholders Agreement or under any other Olympus Agreement to require Borrower to purchase or sell any shares of Olympus-Cytori.

8.2. **Lender Remedies.** Upon the occurrence of any Event of Default, Agent shall, at the written request of the Requisite Lenders, terminate the Commitments with respect to further Term Loans and declare any or all of the Obligations to be immediately due and payable, without demand or notice to any Loan Party and the accelerated Obligations shall bear interest at the Default Rate pursuant to Section 2.6, provided that, upon the occurrence of any Event of Default specified in Section 8.1(g) above, the Commitments shall be automatically terminated and the Obligations shall be automatically accelerated. After the occurrence of an Event of Default, Agent shall have (on behalf of itself and Lenders) all of the rights and remedies of a secured party under the UCC, and under any other applicable law; provided , however , that Agent shall not commence the exercise of such rights and remedies (whether arising under this Agreement or any other Debt Document) without the prior written request of Requisite Lenders. Upon the exercise of such rights and remedies, Agent shall consult with and keep the Lenders informed thereof at reasonable intervals; provided, however, that notwithstanding any such consultations and provision of information to the Lenders, Agent shall retain the right to make all determinations in the event of disagreements between Agent and Lenders. Without limiting the foregoing, (1) Agent shall have the right to, and at the written request of the Requisite Lenders shall, (a) notify any account debtor of any

Loan Party or any obligor on any instrument which constitutes part of the Collateral of the security interest of the Agent in the same (for the benefit of itself and Lenders) and (b) with or without legal process, enter any premises where the Collateral may be and inspect the Collateral; and (2) Agent shall, at the written request of the Required Lenders, (x) notify any account debtor of any Loan Party or any obligor on any instrument which constitutes part of the Collateral to make payments to Agent (for the benefit of itself and Lenders), (y) sell the Collateral at public or private sale, in whole or in part, and have the right to bid and purchase at such sale, and (z) lease or otherwise dispose of all or part of the Collateral, applying proceeds from any such disposition to the Obligations in accordance with Section 8.4. If requested by Agent, Loan Parties shall promptly assemble the Collateral and make it available to Agent at a place to be designated by Agent. Agent may also render any or all of the Collateral unusable at a Loan Party's premises and may dispose of such Collateral on such premises without liability for rent or costs. Any notice that Agent is required to give to a Loan Party under the UCC of the time and place of any public sale or the time after which any private sale or other intended disposition of the Collateral is to be made shall be deemed to constitute reasonable notice if such notice is given in accordance with this Agreement at least 5 days prior to such action. Effective only upon the occurrence and during the continuance of an Event of Default, each Loan Party hereby irrevocably appoints Agent (and any of Agent's designated officers or employees) as such Loan Party's true and lawful attorney to: (i) take any of the actions specified above in this paragraph; (ii) endorse such Loan Party's name on any checks or other forms of payment or security that may come into Agent's possession; (iii) settle and adjust disputes and claims respecting the accounts directly with account debtors, for amounts and upon terms which Agent determines to be reasonable; and (iv) do such other and further acts and deeds in the name of such Loan Party that Agent may deem necessary or desirable to enforce its rights in or to any of the Collateral or to perfect or better perfect Agent's security interest (on behalf of itself and Lenders) in any of the Collateral. The appointment of Agent as each Loan Party's attorney in fact is a power coupled with an interest and is irrevocable until the Termination Date. Notwithstanding any provision of this Section 8.2 to the contrary, upon the occurrence of any Event of Default, Agent shall have the right to exercise any and all remedies referenced in this Section 8.2 without the written consent of Requisite Lenders following the occurrence of an Exigent Circumstance. As used in the immediately preceding sentence, "Exigent Circumstance" means any event or circumstance that, in the reasonable judgment of Agent, imminently threatens the ability of Agent to realize upon all or any material portion of the Collateral, such as, without limitation, fraudulent removal, concealment, or abscondment thereof, destruction or material waste thereof, or failure of any Loan Party after reasonable demand to maintain or reinstate adequate casualty insurance coverage, or which, in the reasonable judgment of Agent, could result in a material diminution in value of the Collateral.

8.3. **Additional Remedies.** In addition to the remedies provided in Section 8.2 above, each Loan Party hereby grants to Agent (on behalf of itself and Lenders) and any transferee of Collateral, solely for purposes of exercising its remedies as provided herein, an irrevocable, nonexclusive license (exercisable without payment of royalty or other compensation to any Loan Party) to use, license or sublicense any Intellectual Property now owned or hereafter acquired by such Loan Party, and wherever the same may be located, and including in such license access to all media in which any of the licensed items may be recorded or stored and to all computer software and programs used for the compilation or printout thereof. Such license rights shall be exercisable only during the continuance of an Event of Default and in any event shall terminate on the Termination Date.

8.4. **Application of Proceeds.**

(a) Proceeds from any Transfer of the Collateral, including, without limitation, the Intellectual Property (other than Permitted Dispositions) and all payments made to or proceeds of Collateral received by Agent during the continuance of an Event of Default shall be applied as follows: (a) first , to pay all fees, costs, indemnities, reimbursements and expenses then due to Agent under the

Debt Documents in its capacity as Agent under the Debt Documents, (b) second , to pay all fees, costs, indemnities, reimbursements and expenses then due to Lenders under the Debt Documents in accordance with their respective Pro Rata Shares, until paid in full, (c) third , to pay all interest on the Term Loans then due to Lenders in accordance with their respective Pro Rata Shares, until paid in full (other than interest accrued after the commencement of any proceeding referred to in Section 8.1(g) if a claim for such interest is not allowable in such proceeding), (d) fourth , to pay all principal on the Term Loans then due to Lenders in accordance with their respective Pro Rata Shares, until paid in full, (e) fifth , to pay all other Obligations then due to Lenders in accordance with their respective Pro Rata Shares, until paid in full (including, without limitation, all interest accrued after the commencement of any proceeding referred to in Section 8.1(g) whether or not a claim for such interest is allowable in such proceeding), (f) sixth , to Borrower or as otherwise required by law. Borrower shall remain fully liable for any deficiency.

(b) Notwithstanding anything in Section 8.4(a) to the contrary, proceeds from the SVB Certificate of Deposit shall first be retained by Silicon Valley Bank for application to the SVB Cash Management Obligations in an amount not to exceed $250,000, and then any remaining proceeds of the SVB Certificate of Deposit shall be delivered by Silicon Valley Bank to Agent for application to the Obligations in the order set forth in Section 8.4(a).

9. THE AGENT.

9.1. **Appointment of Agent** .

(a) Each Lender hereby appoints GECC (together with any successor Agent pursuant to Section 9.9) as Agent under the Debt Documents and authorizes the Agent to (a) execute and deliver the Debt Documents and accept delivery thereof on its behalf from Loan Parties, (b) take such action on its behalf and to exercise all rights, powers and remedies and perform the duties as are expressly delegated to the Agent under such Debt Documents and (c) exercise such powers as are reasonably incidental thereto. The provisions of this Article 9 are solely for the benefit of Agent and Lenders and none of Loan Parties nor any other person shall have any rights as a third party beneficiary of any of the provisions hereof. In performing its functions and duties under this Agreement and the other Debt Documents, Agent shall act solely as an agent of Lenders and does not assume and shall not be deemed to have assumed any obligation toward or relationship of agency or trust with or for any Loan Party or any other person. Agent shall have no duties or responsibilities except for those expressly set forth in this Agreement and the other Debt Documents. The duties of Agent shall be mechanical and administrative in nature and Agent shall not have, or be deemed to have, by reason of this Agreement, any other Debt Document or otherwise a fiduciary or trustee relationship in respect of any Lender. Except as expressly set forth in this Agreement and the other Debt Documents, Agent shall not have any duty to disclose, and shall not be liable for failure to disclose, any information relating to Borrower or any of its Subsidiaries that is communicated to or obtained by GECC or any of its affiliates in any capacity.

(b) Without limiting the generality of clause (a) above, Agent shall have the sole and exclusive right and authority (to the exclusion of the Lenders), and is hereby authorized, to (i) act as the disbursing and collecting agent for the Lenders with respect to all payments and collections arising in connection with the Debt Documents (including in any other bankruptcy, insolvency or similar proceeding), and each person making any payment in connection with any Debt Document to any Lender is hereby authorized to make such payment to Agent, (ii) file and prove claims and file other documents necessary or desirable to allow the claims of Agent and Lenders with respect to any Obligation in any proceeding described in any bankruptcy, insolvency or similar proceeding (but not to vote, consent or otherwise act on behalf of such Lender), (iii) act as collateral agent for Agent and each Lender for purposes of the perfection of all Liens created by

the Debt Documents and all other purposes stated therein, (iv) manage, supervise and otherwise deal with the Collateral, (v) take such other action as is necessary or desirable to maintain the perfection and priority of the Liens created or purported to be created by the Debt Documents, (vi) except as may be otherwise specified in any Debt Document, exercise all remedies given to Agent and the other Lenders with respect to the Collateral, whether under the Debt Documents, applicable law or otherwise and (vii) execute any amendment, consent or waiver under the Debt Documents on behalf of any Lender that has consented in writing to such amendment, consent or waiver; provided , however , that Agent hereby appoints, authorizes and directs each Lender to act as collateral sub-agent for Agent and the Lenders for purposes of the perfection of all Liens with respect to the Collateral, including any deposit account maintained by a Loan Party with, and cash and cash equivalents held by, such Lender, and may further authorize and direct the Lenders to take further actions as collateral sub-agents for purposes of enforcing such Liens or otherwise to transfer the Collateral subject thereto to Agent, and each Lender hereby agrees to take such further actions to the extent, and only to the extent, so authorized and directed. Agent may, upon any term or condition it specifies, delegate or exercise any of its rights, powers and remedies under, and delegate or perform any of its duties or any other action with respect to, any Debt Document by or through any trustee, co-agent, employee, attorney-in-fact and any other person (including any Lender). Any such person shall benefit from this Article 9 to the extent provided by Agent. For the avoidance of doubt, Agent hereby acknowledges and agrees that, with respect to the UCC Financing Statements numbered 11540256, 32447855, 32823626, 40960056, 41365453, 42812172, 60048330, 11540264 and 0156611, each naming Borrower as debtor and previously filed by General Electric Capital Corporation in the office of the Secretary of State of the State of Delaware, such UCC Financing Statements are maintained by General Electric Capital Corporation in its capacity as Agent for the perfection of the Liens granted to Agent, for the benefit of itself and Lenders, under this Agreement.

(c) If Agent shall request instructions from Requisite Lenders or all affected Lenders with respect to any act or action (including failure to act) in connection with this Agreement or any other Debt Document, then Agent shall be entitled to refrain from such act or taking such action unless and until Agent shall have received instructions from Requisite Lenders or all affected Lenders, as the case may be, and Agent shall not incur liability to any person by reason of so refraining. Agent shall be fully justified in failing or refusing to take any action hereunder or under any other Debt Document (a) if such action would, in the opinion of Agent, be contrary to law or any Debt Document, (b) if such action would, in the opinion of Agent, expose Agent to any potential liability under any law, statute or regulation or (c) if Agent shall not first be indemnified to its satisfaction against any and all liability and expense which may be incurred by it by reason of taking or continuing to take any such action. Without limiting the foregoing, no Lender shall have any right of action whatsoever against Agent as a result of Agent acting or refraining from acting hereunder or under any other Debt Document in accordance with the instructions of Requisite Lenders or all affected Lenders, as applicable.

9.2. **Agent's Reliance, Etc** . Neither Agent nor any of its affiliates nor any of their respective directors, officers, agents, employees or representatives shall be liable for any action taken or omitted to be taken by it or them hereunder or under any other Debt Documents, or in connection herewith or therewith, except for damages caused by its or their own gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Without limiting the generality of the foregoing, Agent: (a) may treat the payee of any Note as the holder thereof until such Note has been assigned in accordance with Section 10.1; (b) may consult with legal counsel, independent public accountants and other experts, whether or not selected by it, and shall not be liable for any action taken or omitted to be taken by it in good faith in accordance with the advice of such counsel, accountants or experts; (c) shall not be responsible or otherwise incur liability for any action or omission taken in reliance upon the instructions

of the Requisite Lenders, (d) makes no warranty or representation to any Lender and shall not be responsible to any Lender for any statements, warranties or representations made in or in connection with this Agreement or the other Debt Documents; (e) shall not have any duty to inspect the Collateral (including the books and records) or to ascertain or to inquire as to the performance or observance of any provision of any Debt Document, whether any condition set forth in any Debt Document is satisfied or waived, as to the financial condition of any Loan Party or as to the existence or continuation or possible occurrence or continuation of any Default or Event of Default and shall not be deemed to have notice or knowledge of such occurrence or continuation unless it has received a notice from Borrower or any Lender describing such Default or Event of Default clearly labeled "notice of default"; (f) shall not be responsible to any Lender for the due execution, legality, validity, enforceability, effectiveness, genuineness, sufficiency or value of, or the attachment, perfection or priority of any Lien created or purported to be created under or in connection with, any Debt Document or any other instrument or document furnished pursuant hereto or thereto; and (g) shall incur no liability under or in respect of this Agreement or the other Debt Documents by acting upon any notice, consent, certificate or other instrument or writing (which may be by telecopy, telegram, cable or telex) believed by it to be genuine and signed or sent or otherwise authenticated by the proper party or parties.

9.3. **GECC and Affiliates.** GECC shall have the same rights and powers under this Agreement and the other Debt Documents as any other Lender and may exercise the same as though it were not Agent; and the term "Lender" or "Lenders" shall, unless otherwise expressly indicated, include GECC in its individual capacity. GECC and its affiliates may lend money to, invest in, and generally engage in any kind of business with, Borrower, any of Borrower's Subsidiaries, any of their Affiliates and any person who may do business with or own securities of Borrower, any of Borrower's Subsidiaries or any such Affiliate, all as if GECC were not Agent and without any duty to account therefor to Lenders. GECC and its affiliates may accept fees and other consideration from Borrower for services in connection with this Agreement or otherwise without having to account for the same to Lenders. Each Lender acknowledges the potential conflict of interest between GECC as a Lender holding disproportionate interests in the Term Loans and GECC as Agent, and expressly consents to, and waives, any claim based upon, such conflict of interest.

9.4. **Lender Credit Decision** . Each Lender acknowledges that it has, independently and without reliance upon Agent or any other Lender and based on the financial statements referred to in Section 6.3 and such other documents and information as it has deemed appropriate, made its own credit and financial analysis of each Loan Party and its own decision to enter into this Agreement. Each Lender also acknowledges that it will, independently and without reliance upon Agent or any other Lender and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under this Agreement. Each Lender acknowledges the potential conflict of interest of each other Lender as a result of Lenders holding disproportionate interests in the Term Loans, and expressly consents to, and waives, any claim based upon, such conflict of interest.

9.5. **Indemnification** . Lenders shall and do hereby indemnify Agent (to the extent not reimbursed by Loan Parties and without limiting the obligations of Loan Parties hereunder), ratably according to their respective Pro Rata Shares from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever that may be imposed on, incurred by, or asserted against Agent in any way relating to or arising out of this Agreement or any other Debt Document or any action taken or omitted to be taken by Agent in connection therewith; provided that no Lender shall be liable for any portion of such liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements resulting from Agent's gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Without limiting the foregoing, each Lender agrees to reimburse Agent promptly upon demand for its Pro Rata Share of any out-of-pocket expenses (including reasonable counsel fees)

incurred by Agent in connection with the preparation, execution, delivery, administration, modification, amendment or enforcement (whether through negotiations, legal proceedings or otherwise) of, or legal advice in respect of rights or responsibilities under, this Agreement and each other Debt Document, to the extent that Agent is not reimbursed for such expenses by Loan Parties. The provisions of this Section 9.5 shall survive the termination of this Agreement.

9.6. **Successor Agent** . Agent may resign at any time by giving not less than 30 days' prior written notice thereof to Lenders and Borrower. Upon any such resignation, the Requisite Lenders shall have the right to appoint a successor Agent. If no successor Agent shall have been so appointed by the Requisite Lenders and shall have accepted such appointment within 30 days after the resigning Agent's giving notice of resignation, then the resigning Agent may, on behalf of Lenders, appoint a successor Agent, which shall be a Lender, if a Lender is willing to accept such appointment, or otherwise shall be a commercial bank or financial institution or a subsidiary of a commercial bank or financial institution if such commercial bank or financial institution is organized under the laws of the United States of America or of any State thereof and has a combined capital and surplus of at least $300,000,000. If no successor Agent has been appointed pursuant to the foregoing, within 30 days after the date such notice of resignation was given by the resigning Agent, such resignation shall become effective and the Requisite Lenders shall thereafter perform all the duties of Agent hereunder until such time, if any, as the Requisite Lenders appoint a successor Agent as provided above. Upon the acceptance of any appointment as Agent hereunder by a successor Agent, such successor Agent shall succeed to and become vested with all the rights, powers, privileges and duties of the resigning Agent. Upon the earlier of the acceptance of any appointment as Agent hereunder by a successor Agent or the effective date of the resigning Agent's resignation, the resigning Agent shall be discharged from its duties and obligations under this Agreement and the other Debt Documents, except that any indemnity rights or other rights in favor of such resigning Agent shall continue. After any resigning Agent's resignation hereunder, the provisions of this Section 9 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was acting as Agent under this Agreement and the other Debt Documents.

9.7. **Setoff and Sharing of Payments** . In addition to any rights now or hereafter granted under applicable law and not by way of limitation of any such rights, upon the occurrence and during the continuance of any Event of Default and subject to Section 9.8(e), each Lender is hereby authorized at any time or from time to time upon the direction of Agent, without notice to Borrower or any other person, any such notice being hereby expressly waived, to offset and to appropriate and to apply any and all balances held by it at any of its offices for the account of Borrower (regardless of whether such balances are then due to Borrower) and any other properties or assets at any time held or owing by that Lender or that holder to or for the credit or for the account of Borrower against and on account of any of the Obligations that are not paid when due. Any Lender exercising a right of setoff or otherwise receiving any payment on account of the Obligations in excess of its Pro Rata Share thereof shall purchase for cash (and the other Lenders or holders shall sell) such participations in each such other Lender's or holder's Pro Rata Share of the Obligations as would be necessary to cause such Lender to share the amount so offset or otherwise received with each other Lender or holder in accordance with their respective Pro Rata Shares of the Obligations. Borrower agrees, to the fullest extent permitted by law, that (a) any Lender may exercise its right to offset with respect to amounts in excess of its Pro Rata Share of the Obligations and may sell participations in such amounts so offset to other Lenders and holders and (b) any Lender so purchasing a participation in the Term Loans made or other Obligations held by other Lenders or holders may exercise all rights of offset, bankers' lien, counterclaim or similar rights with respect to such participation as fully as if such Lender or holder were a direct holder of the Term Loans and the other Obligations in the amount of such participation. Notwithstanding the foregoing, if all or any portion of the offset amount or payment otherwise received is thereafter recovered from the Lender that has exercised the right of offset, the purchase of participations by that Lender shall be rescinded and the purchase price restored without interest. The term " Pro Rata Share " means, with respect to any Lender at

any time, the percentage obtained by dividing (x) the Commitment of such Lender then in effect (or, if such Commitment is terminated, the aggregate outstanding principal amount of the Term Loans owing to such Lender) by (y) the Total Commitment then in effect (or, if the Total Commitment is terminated, the outstanding principal amount of the Term Loans owing to all Lenders).

9.8. **Advances; Payments; Non-Funding Lenders; Information; Actions in Concert.**

(a) Advances; Payments . If Agent receives any payment for the account of Lenders on or prior to 11:00 a.m. (New York time) on any Business Day, Agent shall pay to each applicable Lender such Lender's Pro Rata Share of such payment on such Business Day. If Agent receives any payment for the account of Lenders after 11:00 a.m. (New York time) on any Business Day, Agent shall pay to each applicable Lender such Lender's Pro Rata Share of such payment on the next Business Day. To the extent that any Lender has failed to fund any such payments and Term Loans (a " Non-Funding Lender "), Agent shall be entitled to set off the funding short-fall against that Non-Funding Lender's Pro Rata Share of all payments received from Borrower.

(b) Return of Payments .

(i) If Agent pays an amount to a Lender under this Agreement in the belief or expectation that a related payment has been or will be received by Agent from a Loan Party and such related payment is not received by Agent, then Agent will be entitled to recover such amount (including interest accruing on such amount at the Federal Funds Rate for the first Business Day and thereafter, at the rate otherwise applicable to such Obligation) from such Lender on demand without setoff, counterclaim or deduction of any kind.

(ii) If Agent determines at any time that any amount received by Agent under this Agreement must be returned to a Loan Party or paid to any other person pursuant to any insolvency law or otherwise, then, notwithstanding any other term or condition of this Agreement or any other Debt Document, Agent will not be required to distribute any portion thereof to any Lender. In addition, each Lender will repay to Agent on demand any portion of such amount that Agent has distributed to such Lender, together with interest at such rate, if any, as Agent is required to pay to a Loan Party or such other person, without setoff, counterclaim or deduction of any kind.

(c) Non-Funding Lenders . The failure of any Non-Funding Lender to make any Term Loan or any payment required by it hereunder shall not relieve any other Lender (each such other Lender, an " Other Lender ") of its obligations to make such Term Loan, but neither any Other Lender nor Agent shall be responsible for the failure of any Non-Funding Lender to make a Term Loan or make any other payment required hereunder. Notwithstanding anything set forth herein to the contrary, a Non-Funding Lender shall not have any voting or consent rights under or with respect to any Debt Document or constitute a "Lender" (or be included in the calculation of "Requisite Lender" hereunder) for any voting or consent rights under or with respect to any Debt Document. At Borrower's request, Agent or a person reasonably acceptable to Agent shall have the right with Agent's consent and in Agent's sole discretion (but shall have no obligation) to purchase from any Non-Funding Lender, and each Non-Funding Lender agrees that it shall, at Agent's request, sell and assign to Agent or such person, all of the Commitments and all of the outstanding Term Loans of that Non-Funding Lender for an amount equal to the principal balance of all Term Loans held by such Non-Funding Lender and all accrued interest and fees with respect thereto through the date of sale, such purchase and sale to be consummated pursuant to an executed Assignment Agreement (as defined below).

(d) Dissemination of Information . Agent shall use reasonable efforts to provide Lenders with any notice of Default or Event of Default received by Agent from, or delivered by Agent to Borrower, with notice of any Event of Default of which Agent has actually become aware and with notice of any action taken by Agent following any Event of Default; provided that Agent shall not be liable to any Lender for any failure to do so, except to the extent that such failure is attributable to Agent's gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Lenders acknowledge that Borrower is required to provide financial statements to Lenders in accordance with Section 6.3 hereto and agree that Agent shall have no duty to provide the same to Lenders.

(e) Actions in Concert . Anything in this Agreement to the contrary notwithstanding, each Lender hereby agrees with each other Lender that no Lender shall take any action to protect or enforce its rights arising out of this Agreement, the Notes or any other Debt Documents (including exercising any rights of setoff) without first obtaining the prior written consent of Agent and Requisite Lenders, it being the intent of Lenders that any such action to protect or enforce rights under this Agreement and the Notes shall be taken in concert and at the direction or with the consent of Agent and Requisite Lenders.

10. MISCELLANEOUS.

10.1. **Assignment.** Subject to the terms of this Section 10.1, any Lender may make an assignment to an assignee of, or sell participations in, at any time or times, the Debt Documents, its Commitment, Term Loans or any portion thereof or interest therein, including any Lender's rights, title, interests, remedies, powers or duties thereunder. Any assignment by a Lender shall: (i) except in the case of an assignment to a Qualified Assignee (as defined below), require the consent of each Lender (which consent shall not be unreasonably withheld, conditioned or delayed), (ii) require the execution of an assignment agreement in form and substance reasonably satisfactory to, and acknowledged by, Agent (an " Assignment Agreement "); (iii) be conditioned on such assignee Lender representing to the assigning Lender and Agent that it is purchasing the applicable Commitment and/or Term Loans to be assigned to it for its own account, for investment purposes and not with a view to the distribution thereof; (iv) be in an aggregate amount of not less than $1,000,000, unless such assignment is made to an existing Lender or an affiliate of an existing Lender or is of the assignor's (together with its affiliates') entire interest of the Term Loans or is made with the prior written consent of Agent; and (v) include a payment to Agent of an assignment fee of $3,500. In the case of an assignment by a Lender under this Section 10.1, the assignee shall have, to the extent of such assignment, the same rights, benefits and obligations as all other Lenders hereunder. The assigning Lender shall be relieved of its obligations hereunder with respect to its Commitment and Term Loans, as applicable, or assigned portion thereof from and after the date of such assignment. Borrower hereby acknowledges and agrees that any assignment shall give rise to a direct obligation of Borrower to the assignee and that the assignee shall be considered to be a "Lender". In the event any Lender assigns or otherwise transfers all or any part of the Commitments and Obligations, Agent shall so notify Borrower and Borrower shall, upon the request of Agent, execute new Notes in exchange for the Notes, if any, being assigned. Agent may amend Schedule A to this Agreement to reflect assignments made in accordance with this Section.

As used herein, " Qualified Assignee" means (a) any Lender and any affiliate of any Lender and (b) any commercial bank, savings and loan association or savings bank or any other entity which is an "accredited investor" (as defined in Regulation D under the Securities Act) which extends credit or buys loans as one of its businesses, including insurance companies, mutual funds, lease financing companies and commercial finance companies, in each case, which has a rating of BBB or higher from S&P and a rating of Baa2 or higher from Moody's at the date that it becomes a Lender and in each case of clauses (a) and (b), which, through its applicable lending office, is capable of lending to Borrower without the

imposition of any withholding or similar taxes; provided that (i) no person proposed to become a Lender after the Closing Date and determined by Agent to be acting in the capacity of a vulture fund or distressed debt purchaser shall be a Qualified Assignee, (ii) no person or Affiliate of such person proposed to become a Lender after the Closing Date and that holds any subordinated debt or stock issued by Borrower shall be a Qualified Assignee and (iii) no person proposed to become a Lender after the Closing Date and that is a direct business competitor of a Loan Party shall be a Qualified Assignee so long as no Default or Event of Default exists at the time of the proposed assignment.

10.2. **Notices.** All notices, requests or other communications given in connection with this Agreement shall be in writing, shall be addressed to the parties at their respective addresses set forth on the signature pages hereto below such parties' name or in the most recent Assignment Agreement executed by any Lender (unless and until a different address may be specified in a written notice to the other party delivered in accordance with this Section), and shall be deemed given (a) on the date of receipt if delivered by hand, (b) on the date of sender's receipt of confirmation of proper transmission if sent by facsimile transmission, (c) on the next Business Day after being sent by a nationally-recognized overnight courier, and (d) on the fourth Business Day after being sent by registered or certified mail, postage prepaid. As used herein, the term " Business Day " means and includes any day other than Saturdays, Sundays, or other days on which commercial banks in New York, New York are required or authorized to be closed.

10.3. **Correction of Debt Documents.** Agent may correct patent errors and fill in all blanks in this Agreement or the Debt Documents consistent with the agreement of the parties.

10.4. **Performance.** Time is of the essence of this Agreement. This Agreement shall be binding, jointly and severally, upon all parties described as the "Borrower" and their respective successors and assigns, and shall inure to the benefit of Agent, Lenders, and their respective successors and assigns.

10.5. **Payment of Fees and Expenses.** Loan Parties agree, jointly and severally, to pay or reimburse upon demand for all reasonable fees, costs and expenses incurred by Agent and Lenders in connection with (a) the investigation, preparation, negotiation, execution, administration of, or any amendment, modification, waiver or termination of, this Agreement or any other Debt Document, (b) the administration of the Loans and the facilities hereunder and any other transaction contemplated hereby or under the Debt Documents and (c) the enforcement, assertion, defense or preservation of Agent's and Lenders' rights and remedies under this Agreement or any other Debt Document, in each case of clauses (a) through (c), including, without limitation, reasonable attorney's fees and expenses, the allocated cost of in-house legal counsel, reasonable fees and expenses of consultants, auditors and appraisers and UCC and other corporate search and filing fees and wire transfer fees. Borrower further agrees that such fees, costs and expenses shall constitute Obligations. This provision shall survive the termination of this Agreement.

10.6. **Indemnity.** Each Loan Party shall and does hereby jointly and severally indemnify and defend Agent, Lenders, and their respective successors and assigns, and their respective directors, officers, employees, consultants, attorneys, agents and affiliates (each an " Indemnitee ") from and against all liabilities, losses, damages, expenses, penalties, claims, actions and suits (including, without limitation, related reasonable attorneys' fees and the allocated costs of in-house legal counsel) of any kind whatsoever arising, directly or indirectly, which may be imposed on, incurred by or asserted against such Indemnitee as a result of or in connection with this Agreement, the other Debt Documents or any of the transactions contemplated hereby or thereby (the " Indemnified Liabilities "); provided that, no Loan Party shall have any obligation to any Indemnitee with respect to any Indemnified Liabilities to the extent such Indemnified Liabilities arise from the gross negligence or willful misconduct of such Indemnitee as

determined by a final non-appealable judgment of a court of competent jurisdiction. This provision shall survive the termination of this Agreement.

10.7. **Rights Cumulative.** Agent's and Lenders' rights and remedies under this Agreement or otherwise arising are cumulative and may be exercised singularly or concurrently. Neither the failure nor any delay on the part of Agent or any Lender to exercise any right, power or privilege under this Agreement shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege preclude any other or further exercise of that or any other right, power or privilege. NONE OF AGENT OR ANY LENDER SHALL BE DEEMED TO HAVE WAIVED ANY OF ITS RESPECTIVE RIGHTS UNDER THIS AGREEMENT OR UNDER ANY OTHER AGREEMENT, INSTRUMENT OR PAPER SIGNED BY BORROWER UNLESS SUCH WAIVER IS EXPRESSED IN WRITING AND SIGNED BY AGENT, REQUISITE LENDERS OR ALL LENDERS, AS APPLICABLE. A waiver on any one occasion shall not be construed as a bar to or waiver of any right or remedy on any future occasion.

10.8. **Entire Agreement; Amendments, Waivers.**

(a) This Agreement and the other Debt Documents constitute the entire agreement between the parties with respect to the subject matter hereof and thereof and supersede all prior understandings (whether written, verbal or implied) with respect to such subject matter. Section headings contained in this Agreement have been included for convenience only, and shall not affect the construction or interpretation of this Agreement.

(b) Except for actions expressly permitted to be taken by Agent, no amendment, modification, termination or waiver of any provision of this Agreement or any other Debt Document, or any consent to any departure by Borrower therefrom, shall in any event be effective unless the same shall be in writing and signed by Agent, Borrower and Lenders having more than (x) 50.1% of the aggregate Commitments of all Lenders or (y) if such Commitments have expired or been terminated, 50.1% of the aggregate outstanding principal amount of the Term Loans (the " Requisite Lenders "). Except as set forth in clause (c) below, all such amendments, modifications, terminations or waivers requiring the consent of any Lenders shall require the written consent of Requisite Lenders.

(c) No amendment, modification, termination or waiver of any provision of this Agreement or any other Debt Document shall, unless in writing and signed by Borrower, Agent and each Lender directly affected thereby: (i) increase or decrease any Commitment of any Lender or increase or decrease the Total Commitment (which shall be deemed to affect all Lenders), (ii) reduce the principal of or rate of interest on any Obligation or the amount of any fees payable hereunder (other than waiving the imposition of the Default Rate), (iii) postpone the date fixed for or waive any payment of principal of or interest on any Term Loan, or any fees hereunder, (iv) release all or substantially all of the Collateral, except as otherwise expressly permitted in the Debt Documents (which shall be deemed to affect all Lenders), (v) subordinate the Lien granted in favor of the Agent securing the Obligations (which shall be deemed to affect all Lenders), (vi) release a Loan Party from, or consent to a Loan Party's assignment or delegation of, such Loan Party's obligations hereunder and under the other Debt Documents or any Guarantor from its guaranty of the Obligations (which shall be deemed to affect all Lenders) or (vii) amend, modify, terminate or waive Section 8.4, 9.7 or 10.8(b) or (c).

(d) Notwithstanding any provision in this Section 10.8 to the contrary, no amendment, modification, termination or waiver affecting or modifying the rights or obligations of Agent hereunder shall be effective unless signed by Borrower, Agent and Requisite Lenders.

(e) Each Lender hereby consents to the release by Agent of any Lien held by the Agent for the benefit of itself and the Lenders in any or all of the Collateral to secure the Obligations upon the termination of the Commitments and the payment and satisfaction in full of the Obligations.

10.9. **Binding Effect.** This Agreement shall continue in full force and effect until the _Termination Date; provided , however, that the provisions of Sections 2.3(e), 9.5, 10.5 and 10.6 and the other indemnities contained in the Debt Documents shall survive the Termination Date. The surrender, upon payment or otherwise, of any Note or any of the other Debt Documents evidencing any of the Obligations shall not affect the right of Agent to retain the Collateral for such other Obligations as may then exist or as it may be reasonably contemplated will exist in the future. This Agreement and the grant of the security interest in the Collateral pursuant to Section 3.1 shall automatically be reinstated if Agent or any Lender is ever required to return or restore the payment of all or any portion of the Obligations (all as though such payment had never been made).

10.10. **Use of Logo.** Each Loan Party authorizes Agent and the Lenders to use its name, logo and/or trademark without notice to or consent by such Loan Party, in connection with certain promotional materials that Agent or a Lender may disseminate to the public. The promotional materials may include, but are not limited to, brochures, video tape, internet website, press releases, advertising in newspaper and/or other periodicals, lucites, and any other materials relating the fact that Agent or a Lender has a financing relationship with Borrower and such materials may be developed, disseminated and used without Loan Parties' review. Nothing herein obligates Agent or any Lender to use a Loan Party's name, logo and/or trademark, in any promotional materials of Agent or any Lender. Loan Parties shall not, and shall not permit any of its respective Affiliates to, issue any press release or other public disclosure (other than any document filed with any governmental authority relating to a public offering of the securities of Borrower) using the name, logo or otherwise referring to General Electric Capital Corporation, GE Healthcare Financial Services, Inc. or of any of their affiliates, the Debt Documents or any transaction contemplated herein or therein without at least two (2) Business Days prior written notice to and the prior written consent of Agent unless, and only to the extent that, Loan Parties or such Affiliate is required to do so under applicable law and then, only after consulting with Agent prior thereto.

10.11. **Waiver of Jury Trial.** EACH OF LOAN PARTIES, AGENT AND LENDERS UNCONDITIONALLY WAIVE ANY AND ALL RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, ANY OF THE OTHER DEBT DOCUMENTS, ANY OF THE INDEBTEDNESS SECURED HEREBY, ANY DEALINGS AMONG LOAN PARTIES, AGENT AND/OR LENDERS RELATING TO THE SUBJECT MATTER OF THIS TRANSACTION OR ANY RELATED TRANSACTIONS, AND/OR THE RELATIONSHIP THAT IS BEING ESTABLISHED AMONG LOAN PARTIES, AGENT AND/OR LENDERS. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT. THIS WAIVER IS IRREVOCABLE. THIS WAIVER MAY NOT BE MODIFIED EITHER ORALLY OR IN WRITING. THE WAIVER ALSO SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT, ANY OTHER DEBT DOCUMENTS, OR TO ANY OTHER DOCUMENTS OR AGREEMENTS RELATING TO THIS TRANSACTION OR ANY RELATED TRANSACTION. THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

10.12. **Governing Law.** THIS AGREEMENT, THE OTHER DEBT DOCUMENTS AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER AND THEREUNDER SHALL IN ALL RESPECTS BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (WITHOUT REGARD TO THE CONFLICT OF

LAWS PRINCIPLES OF SUCH STATE), INCLUDING ALL MATTERS OF CONSTRUCTION, VALIDITY AND PERFORMANCE, REGARDLESS OF THE LOCATION OF THE COLLATERAL; PROVIDED, HOWEVER, THAT IF THE LAWS OF ANY JURISDICTION OTHER THAN NEW YORK SHALL GOVERN IN REGARD TO THE VALIDITY, PERFECTION OR EFFECT OF PERFECTION OF ANY LIEN OR IN REGARD TO PROCEDURAL MATTERS AFFECTING ENFORCEMENT OF ANY LIENS IN COLLATERAL, SUCH LAWS OF SUCH OTHER JURISDICTIONS SHALL CONTINUE TO APPLY TO THAT EXTENT. IF ANY ACTION ARISING OUT OF THIS AGREEMENT OR ANY OTHER DEBT DOCUMENT IS COMMENCED BY AGENT IN THE STATE COURTS OF THE STATE OF NEW YORK IN THE COUNTY OF NEW YORK OR IN THE U.S. DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK, EACH LOAN PARTY HEREBY CONSENTS TO THE JURISDICTION OF ANY SUCH COURT IN ANY SUCH ACTION AND TO THE LAYING OF VENUE IN THE STATE OF NEW YORK. NOTWITHSTANDING THE FOREGOING, THE AGENT AND LENDERS SHALL HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST ANY LOAN PARTY (OR ANY PROPERTY) IN THE COURT OF ANY OTHER JURISDICTION THE AGENT OR THE LENDERS DEEM NECESSARY OR APPROPRIATE IN ORDER TO REALIZE ON THE COLLATERAL OR OTHER SECURITY FOR THE OBLIGATIONS. ANY PROCESS IN ANY SUCH ACTION SHALL BE DULY SERVED IF MAILED BY REGISTERED MAIL, POSTAGE PREPAID, TO LOAN PARTIES AT THEIR ADDRESS DESCRIBED IN SECTION 10.2, OR IF SERVED BY ANY OTHER MEANS PERMITTED BY APPLICABLE LAW.

10.13. **Confidentiality** . Agent and each Lender agrees, as to itself, to use commercially reasonable efforts (equivalent to the efforts Agent or such Lender, as the case may be, applies to maintaining the confidentiality of its own confidential information) to maintain as confidential all confidential information provided to it by Borrower, any other Loan Party or any of their respective Subsidiaries, and designated as confidential, except that Agent and Lenders may disclose such information (a) to persons employed by, or professionals engaged by, Agent or a Lender (it being understood that the persons to whom such disclosure is made will be informed of the confidential nature of such information and instructed to keep such information confidential); (b) to any bona fide assignee or participant or potential assignee or participant that has agreed to comply with the covenant contained in this Section 10.13 (and any such bona fide assignee or participant or potential assignee or participant may disclose such information to persons employed or engaged by them as described in clause (a) above); (c) as required or requested by any governmental authority or reasonably believed by Agent or any Lender to be compelled by any court decree, subpoena or legal or administrative order or process, provided that Agent and each Lender shall use reasonable efforts to provide prior written notice to the Loan Parties of such disclosure, unless such notice is prohibited by applicable law or an order of a governmental authority; (d) as, on the advice of Agent's or such Lender's counsel, required by law; (e) in connection with the exercise of any right or remedy under the Debt Documents or in connection with any litigation to which Agent or such Lender is a party or bound that relates to this Agreement, any other Debt Document or the transactions contemplated hereby or thereby; or (f) that ceases to be confidential through no fault of Agent or such Lender.

10.14. **Counterparts.** This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute one and the same agreement. Delivery of an executed signature page of this Agreement by facsimile transmission or electronic transmission shall be as effective as delivery of a manually executed counterpart hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, each Loan Party, Agent and Lenders, intending to be legally bound hereby, have duly executed this Agreement in one or more counterparts, each of which shall be deemed to be an original, as of the day and year first aforesaid.

BORROWER:

CYTORI THERAPEUTICS, INC.

By: /s/ Mark E. Saad
Name: Mark E. Saad
Title: Chief Financial Officer

Address For Notices For All Loan Parties:

Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, California 92121
Attention: Mark E. Saad
Phone: (858) 458-0900
Facsimile: (858) 450-4355

With a copy to:

Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, California 92121
Attention: In-House Counsel
Phone: (858) 458-0900
Facsimile: (858) 450-4335

AGENT AND LENDER:

GENERAL ELECTRIC CAPITAL CORPORATION

By: /s/ Peter Gibson
Name: Peter Gibson
Title: Duly Authorized Signatory

Address For Notices:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc., LSF
83 Wooster Heights Road, Fifth Floor
Danbury, Connecticut 06810
Attention: Senior Vice President of Risk
Phone: (203) 205-5200
Facsimile: (203) 205-2192

With a copy to:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc.
Two Bethesda Metro Center, Suite 600
Bethesda, Maryland 20814
Attention: General Counsel
Phone: (301) 961-1640
Facsimile: (301) 664-9866

LENDER:

SILICON VALLEY BANK

By: /s/ Andre P. Pelletier
Name: Andre P. Pelletier
Title: Senior Relationship Manager

Address For Notices:

4370 La Jolla Village Drive, Ste. 860
San Diego, CA 92122
Attention: Sarah Larson
Phone: 858-784-3308
Facsimile: 858-622-1424

Exhibit 10.60

PROMISSORY NOTE

October 14, 2008

FOR VALUE RECEIVED, CYTORI THERAPEUTICS, INC., a Delaware corporation, located at the address stated below (" Borrower "), promises to pay to the order of GENERAL ELECTRIC CAPITAL CORPORATION or any subsequent holder hereof (each, a " Lender "), the principal sum of SEVEN MILLION, FIVE HUNDRED THOUSAND and 0/100 Dollars ($7,500,000.00) or, if less, the aggregate unpaid principal amount of all Term Loans made by Lender to or on behalf of Borrower pursuant to the Agreement (as hereinafter defined). All capitalized terms, unless otherwise defined herein, shall have the respective meanings assigned to such terms in the Agreement.

This Promissory Note is issued pursuant to that certain Loan and Security Agreement, dated as of October 14, 2008, among Borrower, the guarantors from time to time party thereto, General Electric Capital Corporation, as agent, and the other lenders signatory thereto (as amended, restated, supplemented or otherwise modified from time to time, the " Agreement "), is one of the Notes referred to therein, and is entitled to the benefit and security of the Debt Documents referred to therein, to which Agreement reference is hereby made for a statement of all of the terms and conditions under which the loans evidenced hereby were made.

The principal amount of the indebtedness evidenced hereby shall be payable in the amounts and on the dates specified in the Agreement. Interest thereon shall be paid until such principal amount is paid in full at such interest rates and at such times as are specified in the Agreement. The terms of the Agreement are hereby incorporated herein by reference.

All payments shall be applied in accordance with the Agreement. The acceptance by Lender of any payment which is less than payment in full of all amounts due and owing at such time shall not constitute a waiver of Lender's right to receive payment in full at such time or at any prior or subsequent time.

All amounts due hereunder and under the other Debt Documents are payable in the lawful currency of the United States of America. Borrower hereby expressly authorizes Lender to insert the date value as is actually given in the blank space on the face hereof and on all related documents pertaining hereto.

This Note is secured as provided in the Agreement and the other Debt Documents. Reference is hereby made to the Agreement and the other Debt Documents for a description of the properties and assets in which a security interest has been granted, the nature and extent of the security interest, the terms and conditions upon which the security interest was granted and the rights of the holder of the Note in respect thereof.

Time is of the essence hereof. If Lender does not receive from Borrower payment in full of any Scheduled Payment or any other sum due under this Note or any other Debt Document within 3 days after its due date, Borrower agrees to pay the Late Fee in accordance with the Agreement. Such Late Fee will be immediately due and payable, and is in addition to any other costs, fees and expenses that Borrower may owe as a result of such late payment.

This Note may be voluntarily prepaid only as permitted under Section 2.4 of the Agreement. After an Event of Default, this Note shall bear interest at a rate per annum equal to the Default Rate pursuant to Section 2.6 of the Agreement.

Borrower and all parties now or hereafter liable with respect to this Note, hereby waive presentment, demand for payment, notice of nonpayment, protest, notice of protest, notice of dishonor, and all other

notices in connection herewith, as well as filing of suit (if permitted by law) and diligence in collecting this Note or enforcing any of the security hereof, and agree to pay (if permitted by law) all expenses incurred in collection, including reasonable attorneys' fees and expenses, including without limitation, the allocated costs of in-house counsel.

THIS NOTE SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF NEW YORK.

No variation or modification of this Note, or any waiver of any of its provisions or conditions, shall be valid unless such variation or modification is made in accordance with Section 10.8 of the Agreement. Any such waiver, consent, modification or change shall be effective only in the specific instance and for the specific purpose given.

IN WITNESS WHEREOF , Borrower has duly executed this Note as of the date first above written.

CYTORI THERAPEUTICS, INC.

By: /s/ Mark E. Saad
Name: Mark E. Saad
Title: Chief Financial Officer
Federal Tax ID #: 33-0827593

Address: 3020 Callan Road
San Diego, California 92121

NEITHER THIS WARRANT NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUBJECT TO SECTION 6 BELOW, NO SALE OR DISPOSITION MAY BE EFFECTED EXCEPT IN COMPLIANCE WITH RULE 144 UNDER SAID ACT OR WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL FOR HOLDER, SATISFACTORY TO COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR RECEIPT OF A NO-ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION.

WARRANT TO PURCHASE 89,074 SHARES OF COMMON STOCK

Warrant No. CSW-08-022 October 14, 2008

THIS CERTIFIES THAT , for value received, GE Capital Equity Investments, Inc. (" Holder ") is entitled to subscribe for and purchase Eighty-Nine Thousand Seventy Four (89,074) shares of fully paid and nonassessable Common Stock of Cytori Therapeutics Inc., a Delaware corporation (the " Company "), at the Warrant Price (as hereinafter defined), subject to the provisions and upon the terms and conditions hereinafter set forth. As used herein, the term "Common Stock" shall mean Company's presently authorized common stock, $0.001 par value per share, and any stock into which such common stock may hereafter be converted or exchanged and the term "Warrant Shares" shall mean the shares of Common Stock which Holder may acquire pursuant to this Warrant and any other shares of stock into which such shares of Common Stock may hereafter be converted or exchanged.

1. Warrant Price . The "Warrant Price" shall initially be Four and 21 dollars ($4.21) per share, subject to adjustment as provided in Section 7 below.

2. Conditions to Exercise . The purchase right represented by this Warrant may be exercised at any time, or from time to time, in whole or in part during the term commencing on the date hereof and ending at 5:00 P.M. Pacific time on the tenth anniversary of the date of this Warrant (the " Expiration Date ").

3. Method of Exercise or Conversion; Payment; Issuance of Shares; Issuance of New Warrant.

(a) Cash Exercise . Subject to Section 2 hereof, the purchase right represented by this Warrant may be exercised by Holder hereof, in whole or in part, by the surrender of the original of this Warrant (together with a duly executed Notice of Exercise in substantially the form attached hereto) at the principal office of Company (as set forth in Section 19 below) and by payment to Company, by certified or bank check, or wire transfer of immediately available funds, of an amount equal to the then applicable Warrant Price per share multiplied by the number of Warrant Shares then being purchased. In the event of any exercise of the rights represented by this Warrant, certificates for the shares of stock so purchased shall be in the name of, and delivered to, Holder hereof, or as such

Holder may direct (subject to the terms of transfer contained herein and upon payment by such Holder hereof of any applicable transfer taxes). Such delivery shall be made within 30 days after exercise of this Warrant and at Company's expense and, unless this Warrant has been fully exercised or expired, a new Warrant having terms and conditions substantially identical to this Warrant and representing the portion of the Warrant Shares, if any, with respect to which this Warrant shall not have been exercised, shall also be issued to Holder hereof within 30 days after exercise of this Warrant.

(b) Conversion . In lieu of exercising this Warrant as specified in Section 3(a), Holder may from time to time convert this Warrant, in whole or in part, into Warrant Shares by surrender of the original of this Warrant (together with a duly executed Notice of Exercise in substantially the form attached hereto) at the principal office of Company, in which event Company shall issue to Holder the number of Warrant Shares computed using the following formula:

$$X = \frac{Y\ (A-B)}{A}$$

Where:

X = the number of Warrant Shares to be issued to Holder.

Y = the number of Warrant Shares purchasable under this Warrant (at the date of such calculation).

A = the Fair Market Value of one share of Company's Common Stock (at the date of such calculation).

B = Warrant Price (as adjusted to the date of such calculation).

(c) Fair Market Value . For purposes of this Section 3, Fair Market Value of one share of Company's Common Stock shall mean:

(i) The average of the closing bid and asked prices of Common Stock quoted in the Over-The-Counter Market Summary, the last reported sale price quoted on the Nasdaq Stock Market or on any other exchange on which the Common Stock is listed, whichever is applicable, as published in the Western Edition of the Wall Street Journal for the ten (10) trading days prior to the date of determination of Fair Market Value; or

(ii) In the event of an exercise in connection with a merger, acquisition or other consolidation in which Company is not the surviving entity, the per share Fair Market Value for the Common Stock shall be the value to be received per share of Common Stock by all holders of the Common Stock in such transaction as determined by the Board of Directors; or

(iii) In any other instance, the per share Fair Market Value for the Common Stock shall be as determined in the reasonable good faith judgment of Company's Board of Directors.

In the event of 3(c)(ii) or 3(c)(iii), above, Company's Board of Directors shall prepare a certificate, to be signed by an authorized officer of Company, setting forth in reasonable detail the basis for and method of determination of the per share Fair Market Value of the Common Stock. The Board of Directors will also certify to Holder that this per share Fair Market Value will be applicable to all holders of Company's Common Stock. Such certification must be made to Holder at least ten (10) business days prior to the proposed effective date of the merger, consolidation, sale, or other

triggering event as defined in 3(c)(ii) or 3(c)(iii).

(d) Automatic Exercise . To the extent this Warrant is not previously exercised, it shall be deemed to have been automatically converted in accordance with Sections 3(b) and 3(c) hereof (even if not surrendered) as of immediately before its expiration, involuntary termination or cancellation if the then-Fair Market Value of a Warrant Share exceeds the then-Warrant Price, unless Holder notifies Company in writing to the contrary prior to such automatic exercise.

(e) Treatment of Warrant Upon Acquisition of Company .

(i) Certain Definitions . For the purpose of this Warrant, "Acquisition" means any sale, exclusive license, or other disposition of all or substantially all of the assets of Company, or any reorganization, consolidation, or merger of Company, or sale of outstanding Company securities by holders thereof, where the holders of Company's securities before the transaction beneficially own less than a majority of the outstanding voting securities of the successor or surviving entity after the transaction. For purposes of this Section 3(e), “Affiliate” shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the voting capital stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person’s or entity’s officers, directors, joint venturers or partners, as applicable.

(ii) Cash Acquisition . In the event of an Acquisition in which the sole consideration is cash, Holder may either (a) exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) permit the Warrant to expire automatically upon the consummation of such Acquisition. Company shall provide Holder with written notice of any proposed Acquisition together with such reasonable information as Holder may request in connection with such contemplated Acquisition giving rise to such notice, which is to be delivered to Holder not less than ten (10) business days prior to the closing of the proposed Acquisition.

(iii) Asset Sale . In the event of an Acquisition that is an arms length sale of all or substantially all of Company’s assets (and only its assets) to a third party that is not an Affiliate of Company (a “ True Asset Sale ”), Holder may either (a) exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) permit the Warrant to continue until the Expiration Date if Company continues as a going concern following the closing of any such True Asset Sale. Company shall provide Holder with written notice of any proposed asset sale together with such reasonable information as Holder may request in connection with such asset sale giving rise to such notice, which is to be delivered to Holder not less than ten (10) business days prior to the closing of the proposed asset sale.

(iv) Assumption of Warrant . Upon the closing of any Acquisition other than those particularly described in subsections (ii) and (iii) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Warrant Shares issuable upon exercise of the unexercised portion of this Warrant as if such Warrant Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Warrant Shares shall be adjusted accordingly.

(v) Early Termination of Warrant in Certain Other Circumstances . Notwithstanding the

foregoing provisions of Section 3(e)(iv), but subject to the terms of Section 3(d), in the event that the acquiror in an Acquisition does not agree to assume this Warrant at and as of the closing of such Acquisition, this Warrant, to the extent not exercised or converted on or prior to such closing, shall terminate and be of no further force or effect as of immediately following the closing of such Acquisition if all of the following conditions are met: (A) the acquiror is subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the " Exchange Act "), (B) the class of stock or other security of the acquiror that would be received by Holder in connection with such Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is listed for trading on a national securities exchange or approved for quotation on an automated inter-dealer quotation system, and (C) the value (determined as of the closing of such Acquisition in accordance with the definitive agreements therefor) of the acquiror stock and/or other securities that would be received by Holder in respect of each Warrant Share were Holder to exercise or convert this Warrant on or prior to the closing of such Acquisition is equal to or greater than three (3) times the then-effective Warrant Price.

4. Representations and Warranties of Holder and Company.

(a) Representations and Warranties by Holder . Holder represents and warrants to Company as follows:

(i) Evaluation . Holder has substantial experience in evaluating and investing in private placement transactions of securities of companies similar to Company so that Holder is capable of evaluating the merits and risks of its investment in Company and has the capacity to protect its interests.

(ii) Resale . Except for transfers to an affiliate of Holder, Holder is acquiring this Warrant and the Warrant Shares issuable upon exercise of this Warrant (collectively the " Securities ") for investment for its own account and not with a view to, or for resale in connection with, any distribution thereof. Holder does not presently have any agreement, plan or understanding, directly or indirectly, with any person to distribute or effect the distribution of any of the Securities to or through any person. Holder understands that the Securities have not been registered under the Securities Act of 1933, as amended (the " Act ") by reason of a specific exemption from the registration provisions of the Act which depends upon, among other things, the bona fide nature of the investment intent as expressed herein.

(iii) Rule 144 . Holder acknowledges that the Securities must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

(iv) Accredited Investor . Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

(v) Opportunity To Discuss . Holder has had an opportunity to discuss Company's business, management and financial affairs with its management and an opportunity to review Company's facilities. Holder understands that such discussions, as well as the written information issued by Company, were intended to describe the aspects of Company's business and prospects which Company believes to be material but were not necessarily a thorough or exhaustive description.

(b) Representations and Warranties by Company . Company hereby represents and warrants to

Holder that the statements in the following paragraphs of this Section 4(b) are true and correct as of the date hereof.

(i) Corporate Organization and Authority . Company (a) is a corporation duly organized, validly existing, and in good standing in its jurisdiction of incorporation; (b) has the corporate power and authority to own and operate its properties and to carry on its business as now conducted and as currently proposed to be conducted; and (c) is qualified as a foreign corporation in all jurisdictions where such qualification is required.

(ii) Corporate Power . Company has all requisite corporate power and authority to execute, issue and deliver this Warrant, to issue the Warrant Shares issuable upon exercise or conversion of this Warrant, and to carry out and perform its obligations under this Warrant and any related agreements.

(iii) Authorization; Enforceability . All corporate action on the part of Company, its officers, directors and shareholders necessary for the authorization, execution, delivery and performance of its obligations under this Warrant and for the authorization, issuance and delivery of this Warrant and the Warrant Shares issuable upon exercise of this Warrant has been taken and this Warrant constitutes the legally binding and valid obligation of Company enforceable in accordance with its terms.

(iv) Valid Issuance of Warrant and Warrant Shares . This Warrant has been validly issued and is free of restrictions on transfer other than restrictions on transfer set forth herein and under applicable state and federal securities laws. The Warrant Shares issuable upon conversion of this Warrant, when issued, sold and delivered in accordance with the terms of this Warrant for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable, and will be free of restrictions on transfer other than restrictions on transfer under this Warrant and under applicable state and federal securities laws. Subject to applicable restrictions on transfer, the issuance and delivery of this Warrant and the Warrant Shares issuable upon exercise or conversion of this Warrant are not subject to any preemptive or other similar rights or any liens or encumbrances except as specifically set forth in Company's Certificate of Incorporation or this Warrant. Assuming the truth and accuracy of Holder's representations and warranties set forth in Section 4(a), no registration under the Act is required for the offer and sale of this Warrant or the issuance of the Warrant Shares, pursuant to the terms of this Warrant and neither Company nor any authorized agent acting on its behalf has or will take any action hereafter that would cause the loss of such exemption.

(v) No Conflict. The execution, delivery, and performance of this Warrant will not result in (a) any violation of, be in conflict with, or constitute a default under, with or without the passage of time or the giving of notice (1) any provision of Company's Certificate of Incorporation or by-laws; (2) any provision of any judgment, decree, or order to which Company is a party, by which it is bound, or to which any of its material assets are subject; (3) any contract, obligation, or commitment to which Company is a party or by which it is bound; or (4) any statute, rule, or governmental regulation applicable to Company, or (b) the creation of any lien, charge or encumbrance upon any assets of Company.

(vi) Reports . Company has previously furnished or made available to Holder complete and accurate copies, as amended or supplemented, of its (a) Annual Report on Form 10-K for the fiscal year ended December 31, 2007, as filed with the Securities and Exchange Commission (the " SEC "), and (b) all other reports filed by Company under Section 13 or subsections (a) or (c) of Section 14 of the Securities Exchange Act of 1934 (as amended, the " Exchange Act ") with the SEC since December 31, 2007 (such reports are collectively referred to herein as the " Company Reports "). The Company Reports constitute all of the documents required to be filed by Company under Section 13 or subsections (a) or (c) of Section 14 of the Exchange Act with the SEC from December 31, 2007 through the date of this Warrant. The Company Reports complied in all material respects with the requirements of the Exchange Act and the rules and regulations thereunder when filed. As of their respective dates of filing with the SEC, the Company Reports did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

5. Legends .

(a) Legend . Each certificate representing the Warrant Shares shall be endorsed with substantially the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND MAY NOT BE TRANSFERRED (UNLESS SUCH TRANSFER IS TO AN AFFILIATE OF HOLDER) UNLESS COVERED BY AN EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT, A "NO ACTION" LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION WITH RESPECT TO SUCH TRANSFER, A TRANSFER MEETING THE REQUIREMENTS OF RULE 144 OF THE SECURITIES AND EXCHANGE COMMISSION, OR (IF REASONABLY REQUIRED BY COMPANY) AN OPINION OF COUNSEL SATISFACTORY TO THE ISSUER TO THE EFFECT THAT ANY SUCH TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

Company need not enter into its stock records a transfer of Warrant Shares unless the conditions specified in the foregoing legend are satisfied. Company may also instruct its transfer agent not to allow the transfer of any of the Warrant Shares unless the conditions specified in the foregoing legend are satisfied.

(b) Removal of Legend and Transfer Restrictions . The legend relating to the Act endorsed on a certificate pursuant to paragraph 5(a) of this Warrant shall be removed and Company shall issue a certificate without such legend to Holder if (i) the Securities are registered under the Act and a prospectus meeting the requirements of Section 10 of the Act is available or (ii) Holder provides to Company an opinion of counsel for Holder reasonably satisfactory to Company, a no-action letter or interpretive opinion of the staff of the SEC reasonably satisfactory to Company, or other evidence reasonably satisfactory to Company, to the effect that public sale, transfer or assignment of the Securities may be made without registration and without compliance with any restriction such as Rule 144.

6. Condition of Transfer or Exercise of Warrant . It shall be a condition to any transfer or exercise of this Warrant that at the time of such transfer or exercise, Holder shall provide Company with a representation

in writing that Holder or transferee is acquiring this Warrant and the shares of Common Stock to be issued upon exercise for investment purposes only and not with a view to any sale or distribution, or will provide Company with a statement of pertinent facts covering any proposed distribution. As a further condition to any transfer of this Warrant or any or all of the shares of Common Stock issuable upon exercise of this Warrant, other than a transfer registered under the Act, Company may request a legal opinion, in form and substance satisfactory to Company and its counsel, reciting the pertinent circumstances surrounding the proposed transfer and stating that such transfer is exempt from the registration and prospectus delivery requirements of the Act. Company shall not require Holder to provide an opinion of counsel if the transfer is to an affiliate of Holder, provided that any such transferee is an "accredited investor" within the meaning of Regulation D under the Act. As further condition to each transfer, at the request of Company, Holder shall surrender this Warrant to Company and the transferee shall receive and accept a Warrant, of like tenor and date, executed by Company.

7. Adjustment for Certain Events . The number and kind of securities purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(a) Reclassification or Merger . In case of (i) any reclassification or change of securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), (ii) any merger of Company with or into another corporation (other than a merger with another corporation in which Company is the acquiring and the surviving corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant), or (iii) any sale of all or substantially all of the assets of Company, subject to the provisions of Section 3(e) hereof, Company, or such successor or purchasing corporation, as the case may be, shall duly execute and deliver to Holder a new Warrant (in form and substance satisfactory to Holder of this Warrant), or Company shall make appropriate provision without the issuance of a new Warrant, so that Holder shall have the right to receive, at a total purchase price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, and in lieu of the Warrant Shares theretofore issuable upon exercise or conversion of this Warrant, the kind and amount of shares of stock, other securities, money and property receivable upon such reclassification, change, merger or sale by a holder of the number of shares of Common Stock then purchasable under this Warrant, or in the case of such a merger or sale in which the consideration paid consists all or in part of assets other than securities of the successor or purchasing corporation, at the option of Holder, the securities of the successor or purchasing corporation having a value at the time of the transaction equivalent to the value of the Warrant Shares purchasable upon exercise of this Warrant at the time of the transaction. Any new Warrant shall provide for adjustments that shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 7. The provisions of this subparagraph (a) shall similarly apply to successive reclassifications, changes, mergers and transfers.

(b) Subdivision or Combination of Shares . If Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its outstanding shares of Common Stock, the Warrant Price shall be proportionately decreased and the number of Warrant Shares issuable hereunder shall be proportionately increased in the case of a subdivision and the Warrant Price shall be proportionately increased and the number of Warrant Shares issuable hereunder shall be proportionately decreased in the case of a combination.

(c) Stock Dividends and Other Distributions . If Company at any time while this Warrant is outstanding and unexpired shall (i) pay a dividend with respect to Common Stock payable in

Common Stock, then the Warrant Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (A) the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution, and (B) the denominator of which shall be the total number of shares of Common Stock outstanding immediately after such dividend or distribution; or (ii) make any other distribution with respect to Common Stock (except any distribution specifically provided for in Sections 7(a) and 7(b)), then, in each such case, provision shall be made by Company such that Holder shall receive upon exercise of this Warrant a proportionate share of any such dividend or distribution as though it were Holder of the Warrant Shares as of the record date fixed for the determination of the shareholders of Company entitled to receive such dividend or distribution.

(d) Adjustment of Number of Shares . Upon each adjustment in the Warrant Price pursuant to clause (i) of Section 7(c), the number of Warrant Shares purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of Warrant Shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

8. Notice of Adjustments . Whenever any Warrant Price or the kind or number of securities issuable under this Warrant shall be adjusted pursuant to Section 7 hereof, Company shall prepare a certificate signed by an officer of Company setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price and number or kind of shares issuable upon exercise of this Warrant after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by certified or registered mail, return receipt required, postage prepaid) within thirty (30) days of such adjustment to Holder as set forth in Section 19 hereof.

9. Financial and Other Reports . If at any time prior to the earlier of the Expiration Date and the complete exercise of this Warrant, Company is no longer subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act, Company shall furnish to Holder (a) quarterly unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements within 45 days of each fiscal quarter end, in a form acceptable to Holder and certified by Company's president or chief financial officer, and (b) annual audited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements certified by an independent certified public accountant selected by Company and reasonably satisfactory to Holder within 120 days of the fiscal year end or, if sooner, promptly after such time as Company's Board of Directors receives the audit; provided, however, that Holder execute and deliver to Company a nondisclosure agreement in a form reasonably acceptable to Company prior to receipt of any such reports.

10. Transferability of Warrant . This Warrant is transferable on the books of Company at its principal office by the registered Holder hereof upon surrender of this Warrant properly endorsed, subject to compliance with Section 6 and applicable federal and state securities laws. Company shall issue and deliver to the transferee a new Warrant representing the Warrant so transferred. Upon any partial transfer, Company will issue and deliver to Holder a new Warrant with respect to the portion of the Warrant not so transferred. Holder shall not have any right to transfer any portion of this Warrant to any direct competitor of Company.

11. Reserved .

12. No Fractional Shares . No fractional share of Common Stock will be issued in connection with any exercise or conversion hereunder, but in lieu of such fractional share Company shall make a cash payment therefor upon the basis of the Warrant Price then in effect.

13. Charges, Taxes and Expenses . Issuance of certificates for shares of Common Stock upon the exercise or conversion of this Warrant shall be made without charge to Holder for any United States or state of the United States documentary stamp tax or other incidental expense with respect to the issuance of such certificate, all of which taxes and expenses shall be paid by Company, and such certificates shall be issued in the name of Holder.

14. No Shareholder Rights Until Exercise . Except as expressly provided herein, this Warrant does not entitle Holder to any voting rights or other rights as a shareholder of Company prior to the exercise hereof.

15. Registry of Warrant . Company shall maintain a registry showing the name and address of the registered Holder of this Warrant. This Warrant may be surrendered for exchange or exercise, in accordance with its terms, at such office or agency of Company, and Company and Holder shall be entitled to rely in all respects, prior to written notice to the contrary, upon such registry.

16. Loss, Theft, Destruction or Mutilation of Warrant . Upon receipt by Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft, or destruction, on delivery of an indemnity reasonably satisfactory to Company in form and amount, and, if mutilated, upon surrender and cancellation of this Warrant, Company will execute and deliver a new Warrant, having terms and conditions substantially identical to this Warrant, in lieu hereof.

17. Miscellaneous .

(a) Issue Date . The provisions of this Warrant shall be construed and shall be given effect in all respect as if it had been issued and delivered by Company on the date hereof.

(b) Successors . This Warrant shall be binding upon any successors or assigns of Company.

(c) Headings . The headings used in this Warrant are used for convenience only and are not to be considered in construing or interpreting this Warrant.

(d) Saturdays, Sundays, Holidays . If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday or a Sunday or shall be a legal holiday in the State of New York, then such action may be taken or such right may be exercised on the next succeeding day not a legal holiday.

(e) Attorney's Fees . In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorney's fees.

18. No Impairment . Company will not, by amendment of its Certificate of Incorporation or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of Holder hereof against impairment;

provided, however, that notwithstanding the foregoing, nothing in this Warrant shall restrict or impair Company's right to effect changes to the rights, preferences, and privileges associated with the Warrant Shares with the requisite consent of the stockholders as may be required to amend its Certificate of Incorporation from time to time so long as such amendment affects the rights, preferences, and privileges granted to Holder associated with the Warrant Shares in the same manner as the other holders of outstanding shares of the same class.

19. Addresses . Any notice required or permitted hereunder shall be in writing and shall be mailed by overnight courier, registered or certified mail, return receipt requested, and postage prepaid, or otherwise delivered by hand or by messenger, addressed as set forth below, or at such other address as Company or Holder hereof shall have furnished to the other party in accordance with the delivery instructions set forth in this Section 19.

If to Company:	Cytori Therapeutics Inc. 3020 Callan Road San Diego, California 92121 Phone: (858) 458-0900 Facsimile: (858) 450-4335 Attn: Chief Financial Officer
With a copy to:	Cytori Therapeutics Inc. 3020 Callan Road San Diego, California 92121 Phone: (858) 458-0900 Facsimile: (858) 450-4335 Attn: In-House Counsel
If to Holder:	GE Capital Equity Investments, Inc. 201 Merritt 7, 1 st Floor P.O. Box 5201 Norwalk, Connecticut 06851 Facsimile: (203) 205-2192 Attn: General Counsel
With copies to:	General Electric Capital Corporation c/o GE Healthcare Financial Services, Inc. 83 Wooster Heights Road, Fifth Floor Danbury, Connecticut 06810 Facsimile: (203) 205-2192 Attn: Senior Managing Director and Senior Vice President of Risk

If mailed by registered or certified mail, return receipt requested, and postage prepaid, notice shall be deemed to be given five (5) days after being sent, and if sent by overnight courier, by hand or by messenger, notice shall be deemed to be given when delivered (if on a business day, and if not, on the next business day), and if sent by facsimile transmission to the facsimile number provided in this Section 19, on the date of transmission, provided that the sender receives a machine-generated confirmation of successful transmission completed before 5:00 p.m. Pacific time (if on a business day, and if not, on the next business day).

20. Notice of Certain Events . If the Company proposes at any time (a) to declare any dividend or distribution upon any of its stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to offer for sale any shares of the Company's capital stock (or other securities convertible into such capital stock), other than (i) pursuant to the Company's stock option or other compensatory plans, (ii) in connection with commercial credit arrangements or equipment financings, (iii) in connection with strategic transactions for purposes other than capital raising, or (iv) the issuance of any shares of the Company's capital stock upon the exercise of any warrants outstanding as of the date hereof; (c) to effect any reclassification or recapitalization of any of its stock; or (d) to merge or consolidate with or into any other corporation, or sell, lease, license, or convey all or substantially all of its assets, or to liquidate, dissolve or wind up, then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of common stock will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (a) and (b) above; and (2) in the case of the matters referred to in (c) and (d) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of common stock will be entitled to exchange their common stock for securities or other property deliverable upon the occurrence of such event). Company will also provide information requested by Holder reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements; provided, however, that Holder execute and deliver to Company a nondisclosure agreement in a form reasonably acceptable to Company prior to receipt of any such information.

21. WAIVER OF JURY TRIAL . EACH OF THE PARTIES HERETO HEREBY WAIVES TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS WARRANT OR THE WARRANT SHARES.

22. GOVERNING LAW . THIS WARRANT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

[Remainder of page intentionally blank; signature page follows]

IN WITNESS WHEREOF, Company has caused this Warrant to be executed by its officer thereunto duly authorized.

CYTORI THERAPEUTICS INC.

By: /s/ Mark E. Saad
Name: Mark E. Saad
Title: Chief Financial Officer

Dated as of October 14, 2008.

ACCEPTED AND AGREED TO:

GE CAPITAL EQUITY INVESTMENTS, INC.

By: /s/ Peter Gibson
Name: Peter Gibson
Title: Duly Authorized Signatory

Dated as of October 14, 2008.

NOTICE OF EXERCISE

To:

Cytori Therapeutics Inc.
3020 Callan Road
San Diego, California 92121
Phone: (858) 458-0900
Facsimile: (858) 450-4335
Attn: Chief Financial Officer

1. The undersigned Warrantholder ("Holder") elects to acquire shares of the Common Stock (the "Common Stock") of Cytori Therapeutics Inc. (the "Company"), pursuant to the terms of the Stock Purchase Warrant dated October 14, 2008 (the "Warrant").

2. Holder exercises its rights under the Warrant as set forth below (check one):

( ) Holder elects to purchase _____ shares of Common Stock as provided in Section 3(a) and tenders herewith a check in the amount of $_____ as payment of the purchase price.

( ) Holder elects to convert the purchase rights into shares of Common Stock as provided in Section 3(b) of the Warrant.

3. Holder surrenders the Warrant with this Notice of Exercise.

Holder represents that it is acquiring the aforesaid shares of Common Stock for investment and not with a view to or for resale in connection with distribution and that Holder has no present intention of distributing or reselling the shares.

Please issue a certificate representing the shares of the Common Stock in the name of Holder or in such other name as is specified below:

Name: _____

Address: _____

Taxpayer I.D.: _____

[NAME OF HOLDER]

By: _____
Name: _____
Title: _____

Date: _____ ___, 200___

NEITHER THIS WARRANT NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUBJECT TO SECTION 6 BELOW, NO SALE OR DISPOSITION MAY BE EFFECTED EXCEPT IN COMPLIANCE WITH RULE 144 UNDER SAID ACT OR WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL FOR HOLDER, SATISFACTORY TO COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR RECEIPT OF A NO-ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION.

WARRANT TO PURCHASE 89,074 SHARES OF COMMON STOCK

Warrant No. CSW-08-023 October 14, 2008

THIS CERTIFIES THAT , for value received, Silicon Valley Bank (" Holder ") is entitled to subscribe for and purchase Eighty-Nine Thousand Seventy Four (89,074) shares of fully paid and nonassessable Common Stock of Cytori Therapeutics Inc., a Delaware corporation (the " Company "), at the Warrant Price (as hereinafter defined), subject to the provisions and upon the terms and conditions hereinafter set forth. As used herein, the term "Common Stock" shall mean Company's presently authorized common stock, $0.001 par value per share, and any stock into which such common stock may hereafter be converted or exchanged and the term "Warrant Shares" shall mean the shares of Common Stock which Holder may acquire pursuant to this Warrant and any other shares of stock into which such shares of Common Stock may hereafter be converted or exchanged.

1. Warrant Price . The "Warrant Price" shall initially be Four and 21 dollars ($4.21) per share, subject to adjustment as provided in Section 7 below.

2. Conditions to Exercise . The purchase right represented by this Warrant may be exercised at any time, or from time to time, in whole or in part during the term commencing on the date hereof and ending at 5:00 P.M. Pacific time on the tenth anniversary of the date of this Warrant (the " Expiration Date ").

3. Method of Exercise or Conversion; Payment; Issuance of Shares; Issuance of New Warrant.

(a) Cash Exercise . Subject to Section 2 hereof, the purchase right represented by this Warrant may be exercised by Holder hereof, in whole or in part, by the surrender of the original of this Warrant (together with a duly executed Notice of Exercise in substantially the form attached hereto) at the principal office of Company (as set forth in Section 19 below) and by payment to Company, by certified or bank check, or wire transfer of immediately available

funds, of an amount equal to the then applicable Warrant Price per share multiplied by the number of Warrant Shares then being purchased. In the event of any exercise of the rights represented by this Warrant, certificates for the shares of stock so purchased shall be in the name of, and delivered to, Holder hereof, or as such Holder may direct (subject to the terms of transfer contained herein and upon payment by such Holder hereof of any applicable transfer taxes). Such delivery shall be made within 30 days after exercise of this Warrant and at Company's expense and, unless this Warrant has been fully exercised or expired, a new Warrant having terms and conditions substantially identical to this Warrant and representing the portion of the Warrant Shares, if any, with respect to which this Warrant shall not have been exercised, shall also be issued to Holder hereof within 30 days after exercise of this Warrant.

(b) Conversion . In lieu of exercising this Warrant as specified in Section 3(a), Holder may from time to time convert this Warrant, in whole or in part, into Warrant Shares by surrender of the original of this Warrant (together with a duly executed Notice of Exercise in substantially the form attached hereto) at the principal office of Company, in which event Company shall issue to Holder the number of Warrant Shares computed using the following formula:

$$X = \frac{Y\ (A-B)}{A}$$

Where:

X = the number of Warrant Shares to be issued to Holder.

Y = the number of Warrant Shares purchasable under this Warrant (at the date of such calculation).

A = the Fair Market Value of one share of Company's Common Stock (at the date of such calculation).

B = Warrant Price (as adjusted to the date of such calculation).

(c) Fair Market Value . For purposes of this Section 3, Fair Market Value of one share of Company's Common Stock shall mean:

(i) The average of the closing bid and asked prices of Common Stock quoted in the Over-The-Counter Market Summary, the last reported sale price quoted on the Nasdaq Stock Market or on any other exchange on which the Common Stock is listed, whichever is applicable, as published in the Western Edition of the Wall Street Journal for the ten (10) trading days prior to the date of determination of Fair Market Value; or

(ii) In the event of an exercise in connection with a merger, acquisition or other consolidation in which Company is not the surviving entity, the per share Fair Market Value for the Common Stock shall be the value to be received per share of Common Stock by all holders of the Common Stock in such transaction as determined by the Board of Directors; or

(iii) In any other instance, the per share Fair Market Value for the Common Stock shall be as determined in the reasonable good faith judgment of Company's Board of

Directors.

In the event of 3(c)(ii) or 3(c)(iii), above, Company's Board of Directors shall prepare a certificate, to be signed by an authorized officer of Company, setting forth in reasonable detail the basis for and method of determination of the per share Fair Market Value of the Common Stock. The Board of Directors will also certify to Holder that this per share Fair Market Value will be applicable to all holders of Company's Common Stock. Such certification must be made to Holder at least ten (10) business days prior to the proposed effective date of the merger, consolidation, sale, or other triggering event as defined in 3(c)(ii) or 3(c)(iii).

(d) Automatic Exercise . To the extent this Warrant is not previously exercised, it shall be deemed to have been automatically converted in accordance with Sections 3(b) and 3(c) hereof (even if not surrendered) as of immediately before its expiration, involuntary termination or cancellation if the then-Fair Market Value of a Warrant Share exceeds the then-Warrant Price, unless Holder notifies Company in writing to the contrary prior to such automatic exercise.

(e) Treatment of Warrant Upon Acquisition of Company .

(i) Certain Definitions . For the purpose of this Warrant, "Acquisition" means any sale, exclusive license, or other disposition of all or substantially all of the assets of Company, or any reorganization, consolidation, or merger of Company, or sale of outstanding Company securities by holders thereof, where the holders of Company's securities before the transaction beneficially own less than a majority of the outstanding voting securities of the successor or surviving entity after the transaction. For purposes of this Section 3(e), "Affiliate" shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the voting capital stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person's or entity's officers, directors, joint venturers or partners, as applicable.

(ii) Cash Acquisition . In the event of an Acquisition in which the sole consideration is cash, Holder may either (a) exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) permit the Warrant to expire automatically upon the consummation of such Acquisition. Company shall provide Holder with written notice of any proposed Acquisition together with such reasonable information as Holder may request in connection with such contemplated Acquisition giving rise to such notice, which is to be delivered to Holder not less than ten (10) business days prior to the closing of the proposed Acquisition.

(iii) Asset Sale . In the event of an Acquisition that is an arms length sale of all or substantially all of Company's assets (and only its assets) to a third party that is not an Affiliate of Company (a " True Asset Sale "), Holder may either (a) exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) permit the Warrant to continue until the Expiration Date if Company continues as a going concern following the closing of any such True Asset Sale. Company shall provide Holder with written notice of any proposed asset sale together with such reasonable information as Holder may request in connection with such asset sale giving rise to such notice, which

is to be delivered to Holder not less than ten (10) business days prior to the closing of the proposed asset sale.

(iv) Assumption of Warrant . Upon the closing of any Acquisition other than those particularly described in subsections (ii) and (iii) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Warrant Shares issuable upon exercise of the unexercised portion of this Warrant as if such Warrant Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Warrant Shares shall be adjusted accordingly.

(v) Early Termination of Warrant in Certain Other Circumstances . Notwithstanding the foregoing provisions of Section 3(e)(iv), but subject to the terms of Section 3(d), in the event that the acquiror in an Acquisition does not agree to assume this Warrant at and as of the closing of such Acquisition, this Warrant, to the extent not exercised or converted on or prior to such closing, shall terminate and be of no further force or effect as of immediately following the closing of such Acquisition if all of the following conditions are met: (A) the acquiror is subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the " Exchange Act "), (B) the class of stock or other security of the acquiror that would be received by Holder in connection with such Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is listed for trading on a national securities exchange or approved for quotation on an automated inter-dealer quotation system, and (C) the value (determined as of the closing of such Acquisition in accordance with the definitive agreements therefor) of the acquiror stock and/or other securities that would be received by Holder in respect of each Warrant Share were Holder to exercise or convert this Warrant on or prior to the closing of such Acquisition is equal to or greater than three (3) times the then-effective Warrant Price.

4. Representations and Warranties of Holder and Company.

(a) Representations and Warranties by Holder . Holder represents and warrants to Company as follows:

(i) Evaluation . Holder has substantial experience in evaluating and investing in private placement transactions of securities of companies similar to Company so that Holder is capable of evaluating the merits and risks of its investment in Company and has the capacity to protect its interests.

(ii) Resale . Except for transfers to an affiliate of Holder, Holder is acquiring this Warrant and the Warrant Shares issuable upon exercise of this Warrant (collectively the " Securities ") for investment for its own account and not with a view to, or for resale in connection with, any distribution thereof. Holder does not presently have any agreement, plan or understanding, directly or indirectly, with any person to distribute or effect the distribution of any of the Securities to or through any person. Holder understands that the Securities have not been registered under the Securities Act of 1933, as amended (the " Act ") by reason of a specific exemption from the registration provisions of the Act which depends upon, among other things, the bona fide nature of the investment intent as expressed herein.

(iii) Rule 144 . Holder acknowledges that the Securities must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

(iv) Accredited Investor . Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

(v) Opportunity To Discuss . Holder has had an opportunity to discuss Company's business, management and financial affairs with its management and an opportunity to review Company's facilities. Holder understands that such discussions, as well as the written information issued by Company, were intended to describe the aspects of Company's business and prospects which Company believes to be material but were not necessarily a thorough or exhaustive description.

(b) Representations and Warranties by Company . Company hereby represents and warrants to Holder that the statements in the following paragraphs of this Section 4(b) are true and correct as of the date hereof.

(i) Corporate Organization and Authority . Company (a) is a corporation duly organized, validly existing, and in good standing in its jurisdiction of incorporation; (b) has the corporate power and authority to own and operate its properties and to carry on its business as now conducted and as currently proposed to be conducted; and (c) is qualified as a foreign corporation in all jurisdictions where such qualification is required.

(ii) Corporate Power . Company has all requisite corporate power and authority to execute, issue and deliver this Warrant, to issue the Warrant Shares issuable upon exercise or conversion of this Warrant, and to carry out and perform its obligations under this Warrant and any related agreements.

(iii) Authorization; Enforceability . All corporate action on the part of Company, its officers, directors and shareholders necessary for the authorization, execution, delivery and performance of its obligations under this Warrant and for the authorization, issuance and delivery of this Warrant and the Warrant Shares issuable upon exercise of this Warrant has been taken and this Warrant constitutes the legally binding and valid obligation of Company enforceable in accordance with its terms.

(iv) Valid Issuance of Warrant and Warrant Shares . This Warrant has been validly issued and is free of restrictions on transfer other than restrictions on transfer set forth herein and under applicable state and federal securities laws. The Warrant Shares issuable upon conversion of this Warrant, when issued, sold and delivered in accordance with the terms of this Warrant for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable, and will be free of restrictions on transfer other than restrictions on transfer under this Warrant and under applicable state and federal securities laws. Subject to applicable restrictions on transfer, the issuance and delivery of this Warrant and the Warrant Shares issuable upon exercise or

conversion of this Warrant are not subject to any preemptive or other similar rights or any liens or encumbrances except as specifically set forth in Company's Certificate of Incorporation or this Warrant. Assuming the truth and accuracy of Holder's representations and warranties set forth in Section 4(a), no registration under the Act is required for the offer and sale of this Warrant or the issuance of the Warrant Shares, pursuant to the terms of this Warrant and neither Company nor any authorized agent acting on its behalf has or will take any action hereafter that would cause the loss of such exemption.

(v) No Conflict. The execution, delivery, and performance of this Warrant will not result in (a) any violation of, be in conflict with, or constitute a default under, with or without the passage of time or the giving of notice (1) any provision of Company's Certificate of Incorporation or by-laws; (2) any provision of any judgment, decree, or order to which Company is a party, by which it is bound, or to which any of its material assets are subject; (3) any contract, obligation, or commitment to which Company is a party or by which it is bound; or (4) any statute, rule, or governmental regulation applicable to Company, or (b) the creation of any lien, charge or encumbrance upon any assets of Company.

(vi) Reports . Company has previously furnished or made available to Holder complete and accurate copies, as amended or supplemented, of its (a) Annual Report on Form 10-K for the fiscal year ended December 31, 2007, as filed with the Securities and Exchange Commission (the " SEC "), and (b) all other reports filed by Company under Section 13 or subsections (a) or (c) of Section 14 of the Securities Exchange Act of 1934 (as amended, the " Exchange Act ") with the SEC since December 31, 2007 (such reports are collectively referred to herein as the " Company Reports "). The Company Reports constitute all of the documents required to be filed by Company under Section 13 or subsections (a) or (c) of Section 14 of the Exchange Act with the SEC from December 31, 2007 through the date of this Warrant. The Company Reports complied in all material respects with the requirements of the Exchange Act and the rules and regulations thereunder when filed. As of their respective dates of filing with the SEC, the Company Reports did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

5. Legends .

(a) Legend . Each certificate representing the Warrant Shares shall be endorsed with substantially the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND MAY NOT BE TRANSFERRED (UNLESS SUCH TRANSFER IS TO AN AFFILIATE OF HOLDER) UNLESS COVERED BY AN EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT, A "NO ACTION" LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION

WITH RESPECT TO SUCH TRANSFER, A TRANSFER MEETING THE REQUIREMENTS OF RULE 144 OF THE SECURITIES AND EXCHANGE COMMISSION, OR (IF REASONABLY REQUIRED BY COMPANY) AN OPINION OF COUNSEL SATISFACTORY TO THE ISSUER TO THE EFFECT THAT ANY SUCH TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

Company need not enter into its stock records a transfer of Warrant Shares unless the conditions specified in the foregoing legend are satisfied. Company may also instruct its transfer agent not to allow the transfer of any of the Warrant Shares unless the conditions specified in the foregoing legend are satisfied.

(b) Removal of Legend and Transfer Restrictions . The legend relating to the Act endorsed on a certificate pursuant to paragraph 5(a) of this Warrant shall be removed and Company shall issue a certificate without such legend to Holder if (i) the Securities are registered under the Act and a prospectus meeting the requirements of Section 10 of the Act is available or (ii) Holder provides to Company an opinion of counsel for Holder reasonably satisfactory to Company, a no-action letter or interpretive opinion of the staff of the SEC reasonably satisfactory to Company, or other evidence reasonably satisfactory to Company, to the effect that public sale, transfer or assignment of the Securities may be made without registration and without compliance with any restriction such as Rule 144.

6. Condition of Transfer or Exercise of Warrant . Upon receipt by Holder of the executed Warrant, Holder will transfer all of this Warrant to Holder's parent company, SVB Financial Group, by execution of an Assignment substantially in the form of Appendix A. It shall be a condition to any transfer or exercise of this Warrant that at the time of such transfer or exercise, Holder shall provide Company with a representation in writing that Holder or transferee is acquiring this Warrant and the shares of Common Stock to be issued upon exercise for investment purposes only and not with a view to any sale or distribution, or will provide Company with a statement of pertinent facts covering any proposed distribution. As a further condition to any transfer of this Warrant or any or all of the shares of Common Stock issuable upon exercise of this Warrant, other than a transfer registered under the Act, Company may request a legal opinion, in form and substance satisfactory to Company and its counsel, reciting the pertinent circumstances surrounding the proposed transfer and stating that such transfer is exempt from the registration and prospectus delivery requirements of the Act. Company shall not require Holder to provide an opinion of counsel if the transfer is to an affiliate of Holder, provided that any such transferee is an "accredited investor" within the meaning of Regulation D under the Act. As further condition to each transfer, at the request of Company, Holder shall surrender this Warrant to Company and the transferee shall receive and accept a Warrant, of like tenor and date, executed by Company.

7. Adjustment for Certain Events . The number and kind of securities purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(a) Reclassification or Merger . In case of (i) any reclassification or change of securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), (ii) any merger of Company with or into another corporation (other than a merger with another corporation in which Company is the acquiring and the surviving

corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant), or (iii) any sale of all or substantially all of the assets of Company, subject to the provisions of Section 3(e) hereof, Company, or such successor or purchasing corporation, as the case may be, shall duly execute and deliver to Holder a new Warrant (in form and substance satisfactory to Holder of this Warrant), or Company shall make appropriate provision without the issuance of a new Warrant, so that Holder shall have the right to receive, at a total purchase price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, and in lieu of the Warrant Shares theretofore issuable upon exercise or conversion of this Warrant, the kind and amount of shares of stock, other securities, money and property receivable upon such reclassification, change, merger or sale by a holder of the number of shares of Common Stock then purchasable under this Warrant, or in the case of such a merger or sale in which the consideration paid consists all or in part of assets other than securities of the successor or purchasing corporation, at the option of Holder, the securities of the successor or purchasing corporation having a value at the time of the transaction equivalent to the value of the Warrant Shares purchasable upon exercise of this Warrant at the time of the transaction. Any new Warrant shall provide for adjustments that shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 7. The provisions of this subparagraph (a) shall similarly apply to successive reclassifications, changes, mergers and transfers.

(b) Subdivision or Combination of Shares . If Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its outstanding shares of Common Stock, the Warrant Price shall be proportionately decreased and the number of Warrant Shares issuable hereunder shall be proportionately increased in the case of a subdivision and the Warrant Price shall be proportionately increased and the number of Warrant Shares issuable hereunder shall be proportionately decreased in the case of a combination.

(c) Stock Dividends and Other Distributions . If Company at any time while this Warrant is outstanding and unexpired shall (i) pay a dividend with respect to Common Stock payable in Common Stock, then the Warrant Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (A) the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution, and (B) the denominator of which shall be the total number of shares of Common Stock outstanding immediately after such dividend or distribution; or (ii) make any other distribution with respect to Common Stock (except any distribution specifically provided for in Sections 7(a) and 7(b)), then, in each such case, provision shall be made by Company such that Holder shall receive upon exercise of this Warrant a proportionate share of any such dividend or distribution as though it were Holder of the Warrant Shares as of the record date fixed for the determination of the shareholders of Company entitled to receive such dividend or distribution.

(d) Adjustment of Number of Shares . Upon each adjustment in the Warrant Price pursuant to clause (i) of Section 7(c), the number of Warrant Shares purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of Warrant Shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such

adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

8. Notice of Adjustments . Whenever any Warrant Price or the kind or number of securities issuable under this Warrant shall be adjusted pursuant to Section 7 hereof, Company shall prepare a certificate signed by an officer of Company setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price and number or kind of shares issuable upon exercise of this Warrant after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by certified or registered mail, return receipt required, postage prepaid) within thirty (30) days of such adjustment to Holder as set forth in Section 19 hereof.

9. Financial and Other Reports . If at any time prior to the earlier of the Expiration Date and the complete exercise of this Warrant, Company is no longer subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act, Company shall furnish to Holder (a) quarterly unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements within 45 days of each fiscal quarter end, in a form acceptable to Holder and certified by Company's president or chief financial officer, and (b) annual audited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements certified by an independent certified public accountant selected by Company and reasonably satisfactory to Holder within 120 days of the fiscal year end or, if sooner, promptly after such time as Company's Board of Directors receives the audit; provided, however, that Holder execute and deliver to Company a nondisclosure agreement in a form reasonably acceptable to Company prior to receipt of any such reports.

10. Transferability of Warrant . This Warrant is transferable on the books of Company at its principal office by the registered Holder hereof upon surrender of this Warrant properly endorsed, subject to compliance with Section 6 and applicable federal and state securities laws. Company shall issue and deliver to the transferee a new Warrant representing the Warrant so transferred. Upon any partial transfer, Company will issue and deliver to Holder a new Warrant with respect to the portion of the Warrant not so transferred. Holder shall not have any right to transfer any portion of this Warrant to any direct competitor of Company.

11. Reserved .

12. No Fractional Shares . No fractional share of Common Stock will be issued in connection with any exercise or conversion hereunder, but in lieu of such fractional share Company shall make a cash payment therefor upon the basis of the Warrant Price then in effect.

13. Charges, Taxes and Expenses . Issuance of certificates for shares of Common Stock upon the exercise or conversion of this Warrant shall be made without charge to Holder for any United States or state of the United States documentary stamp tax or other incidental expense with respect to the issuance of such certificate, all of which taxes and expenses shall be paid by Company, and such certificates shall be issued in the name of Holder.

14. No Shareholder Rights Until Exercise . Except as expressly provided herein, this Warrant does not entitle Holder to any voting rights or other rights as a shareholder of Company prior to the exercise hereof.

15. Registry of Warrant . Company shall maintain a registry showing the name and address of the registered Holder of this Warrant. This Warrant may be surrendered for exchange or exercise, in

accordance with its terms, at such office or agency of Company, and Company and Holder shall be entitled to rely in all respects, prior to written notice to the contrary, upon such registry.

16. Loss, Theft, Destruction or Mutilation of Warrant . Upon receipt by Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft, or destruction, on delivery of an indemnity reasonably satisfactory to Company in form and amount, and, if mutilated, upon surrender and cancellation of this Warrant, Company will execute and deliver a new Warrant, having terms and conditions substantially identical to this Warrant, in lieu hereof.

17. Miscellaneous .

(a) Issue Date . The provisions of this Warrant shall be construed and shall be given effect in all respect as if it had been issued and delivered by Company on the date hereof.

(b) Successors . This Warrant shall be binding upon any successors or assigns of Company.

(c) Headings . The headings used in this Warrant are used for convenience only and are not to be considered in construing or interpreting this Warrant.

(d) Saturdays, Sundays, Holidays . If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday or a Sunday or shall be a legal holiday in the State of California, then such action may be taken or such right may be exercised on the next succeeding day not a legal holiday.

(e) Attorney's Fees . In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorney's fees.

18. No Impairment . Company will not, by amendment of its Certificate of Incorporation or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of Holder hereof against impairment; provided, however, that notwithstanding the foregoing, nothing in this Warrant shall restrict or impair Company's right to effect changes to the rights, preferences, and privileges associated with the Warrant Shares with the requisite consent of the stockholders as may be required to amend its Certificate of Incorporation from time to time so long as such amendment affects the rights, preferences, and privileges granted to Holder associated with the Warrant Shares in the same manner as the other holders of outstanding shares of the same class.

19. Addresses . Any notice required or permitted hereunder shall be in writing and shall be mailed by overnight courier, registered or certified mail, return receipt requested, and postage prepaid, or otherwise delivered by hand or by messenger, addressed as set forth below, or at such other address as Company or Holder hereof shall have furnished to the other party in accordance with the delivery instructions set forth in this Section 19.

If to Company:	Cytori Therapeutics Inc. 3020 Callan Road San Diego, California 92121 Phone: (858) 458-0900 Facsimile: (858) 450-4335 Attn: Chief Financial Officer
With a copy to:	Cytori Therapeutics, Inc. 3020 Callan Road San Diego, California 92121 Phone: (858) 458-0900 Facsimile: (858) 450-4335 Attn: In-House Counsel
If to Holder:	Silicon Valley Bank 3003 Tasman Drive (HA-200) Santa Clara, CA 9505 Facsimile: 408-496-2405 Phone: 408-654-7400 Attn: Treasury Department

If mailed by registered or certified mail, return receipt requested, and postage prepaid, notice shall be deemed to be given five (5) days after being sent, and if sent by overnight courier, by hand or by messenger, notice shall be deemed to be given when delivered (if on a business day, and if not, on the next business day), and if sent by facsimile transmission to the facsimile number provided in this Section 19, on the date of transmission, provided that the sender receives a machine-generated confirmation of successful transmission completed before 5:00 p.m. Pacific time (if on a business day, and if not, on the next business day).

20. Notice of Certain Events . If the Company proposes at any time (a) to declare any dividend or distribution upon any of its stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to offer for sale any shares of the Company's capital stock (or other securities convertible into such capital stock), other than (i) pursuant to the Company's stock option or other compensatory plans, (ii) in connection with commercial credit arrangements or equipment financings, (iii) in connection with strategic transactions for purposes other than capital raising, or (iv) the issuance of any shares of the Company’s capital stock upon the exercise of any warrants outstanding as of the date hereof; (c) to effect any reclassification or recapitalization of any of its stock; or (d) to merge or consolidate with or into any other corporation, or sell, lease, license, or convey all or substantially all of its assets, or to liquidate, dissolve or wind up, then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of common stock will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (a) and (b) above; and (2) in the case of the matters referred to in (c) and (d) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of common stock will be entitled to exchange their common stock for securities or other property deliverable upon the occurrence of such

event). Company will also provide information requested by Holder reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements; provided, however, that Holder execute and deliver to Company a nondisclosure agreement in a form reasonably acceptable to Company prior to receipt of any such information.

21. WAIVER OF JURY TRIAL . EACH OF THE PARTIES HERETO HEREBY WAIVES TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS WARRANT OR THE WARRANT SHARES.

22. GOVERNING LAW . THIS WARRANT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.

[Remainder of page intentionally blank; signature page follows]

IN WITNESS WHEREOF, Company has caused this Warrant to be executed by its officer thereunto duly authorized.

CYTORI THERAPEUTICS, INC.

By: /s/ Mark Saad
Name: Mark Saad
Title: Chief Financial Officer

Dated as of October 14, 2008.

ACCEPTED AND AGREED TO:

SILICON VALLEY BANK

By: /s/ Andre P. Pelletier
Name: Andre P. Pelletier
Title: Senior Relationship Manager

Dated as of October 14, 2008.

NOTICE OF EXERCISE

To:

Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, California 92121
Phone: (858) 458-0900
Facsimile: (858) 450-4335
Attn: Chief Financial Officer

1. The undersigned Warrantholder ("Holder") elects to acquire shares of the Common Stock (the "Common Stock") of Cytori Therapeutics Inc. (the "Company"), pursuant to the terms of the Stock Purchase Warrant dated October 14, 2008 (the "Warrant").

2. Holder exercises its rights under the Warrant as set forth below (check one):

   ( ) Holder elects to purchase _____ shares of Common Stock as provided in Section 3(a) and tenders herewith a check in the amount of $_____ as payment of the purchase price.

   ( ) Holder elects to convert the purchase rights into shares of Common Stock as provided in Section 3(b) of the Warrant.

3. Holder surrenders the Warrant with this Notice of Exercise.

Holder represents that it is acquiring the aforesaid shares of Common Stock for investment and not with a view to or for resale in connection with distribution and that Holder has no present intention of distributing or reselling the shares.

Please issue a certificate representing the shares of the Common Stock in the name of Holder or in such other name as is specified below:

Name: _____

Address: _____

Taxpayer I.D.: _____

[NAME OF HOLDER]

By: _____
Name: _____
Title: _____

Date: _____ ___, 200___

APPENDIX A

ASSIGNMENT

For value received, Silicon Valley Bank hereby sells, assigns and transfers unto

Name: SVB Financial Group
Address: 3003 Tasman Drive (HA-200)
Santa Clara, CA 95054
Tax ID: XX-XXXXXXX

that certain Warrant to Purchase Stock issued by Cytori Therapeutics, Inc. (the "Company"), on October 14, 2008 (the "Warrant") together with all rights, title and interest therein.

SILICON VALLEY BANK

By: _____
Name: _____
Title: _____

By its execution below, and for the benefit of the Company, SVB Financial Group makes each of the representations and warranties set forth in Article 4 of the Warrant and agrees to all other provisions of the Warrant as of the date hereof.

SVB FINANCIAL GROUP

By: _____
Name: _____
Title: _____

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Cytori Therapeutics, Inc.:

We consent to the incorporation by reference in the registration statement (Nos. 333-82074 and 333-122691) on Form S-8 and (Nos. 333-140875, 333-157023, 333-153233 and 333-134129) on Form S-3 of Cytori Therapeutics, Inc. of our reports dated March 6, 2009, with respect to the consolidated balance sheets of Cytori Therapeutics, Inc. and subsidiaries as of December 31, 2008 and 2007, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2008, the accompanying schedule of valuation and qualifying accounts, and the effectiveness of internal control over financial reporting of Cytori Therapeutics, Inc. and subsidiaries as of December 31, 2008, and to the reference to our firm in Item 6, *Selected Financial Data* , which reports appear in the December 31, 2008, annual report on Form 10-K of Cytori Therapeutics, Inc.

/s/ KPMG LLP

San Diego, California
March 6, 2009

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 annual report on Form 10-K 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: March 6, 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 annual report on Form 10-K 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: March 6, 2009
/s/ Mark E. Saad
Mark E. Saad,
Chief Financial Officer

EXHIBIT 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

In connection with the Annual Report on Form 10-K of Cytori Therapeutics, Inc. for the year ended December 31, 2008 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-K 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-K 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: March 6, 2009

Christopher J. Calhoun
Chief Executive Officer

By: /s/ Mark E. Saad

Dated: March 6, 2009

Mark E. Saad
Chief Financial Officer