Celsion CORP
Form 10-K
March 18, 2013

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

FORM 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2012

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 001-15911

CELSION CORPORATION
(Exact Name of Registrant as Specified in Its Charter)

DELAWARE	52-1256615
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
997 LENOX DRIVE, SUITE 100 LAWRENCEVILLE, NJ	08648
(Address of Principal Executive Offices)	(Zip Code)

(609) 896-9100
Registrant's Telephone Number, Including Area Code

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
COMMON STOCK, PAR VALUE $.01 PER SHARE	NASDAQ CAPITAL MARKET

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 þ

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No þ

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 þ No ¨

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes þ 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 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. þ

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

Large Accelerated Filer	o		Accelerated Filer	þ
Non-accelerated Filer	o	(Do not check if a smaller reporting company)	Smaller Reporting Company	o

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes ¨ No þ

As of June 29, 2012, the aggregate market value of the common stock held by non-affiliates of the Registrant was approximately $99,694,753, based on the closing sale price for the Registrant's common stock on that date as reported by the NASDAQ Capital Market. For purposes of this calculation, shares of common stock held by directors and officers of the Registrant at June 29, 2012 were excluded.

As of March 15, 2013, 50,832,933 shares of the Registrant's common stock were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement to be filed for its 2013 Annual Meeting of Stockholders are incorporated by reference into Part III hereof. Such Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the end of the fiscal year covered by this Annual Report on Form 10-K.

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PART I

ITEM 1. BUSINESS

FORWARD-LOOKING STATEMENTS

Certain of the statements contained in this Annual Report on Form 10-K are forward-looking and constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, from time to time we may publish forward-looking statements relating to such matters as anticipated financial performance, business prospects, technological developments, product pipelines, clinical trials and research and development activities, the adequacy of capital reserves and anticipated operating results and cash expenditures, current and potential collaborations, strategic alternatives and other aspects of our present and future business operations and similar matters that also constitute such forward-looking statements. These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. Such factors include, among other things, unforeseen changes in the course of research and development activities and in clinical trials; possible changes in cost and timing of development and testing, possible changes in capital structure, financial condition, future working capital needs and other financial items; changes in approaches to medical treatment; introduction of new products by others; success or failure of our current or future collaboration arrangements, risks and uncertainties associated with possible acquisitions of other technologies, assets or businesses; possible actions by customers, suppliers, strategic partners, potential strategic partners, competitors and regulatory authorities, as well as those listed under "Risk Factors" below and elsewhere in this Annual Report on Form 10-K. In some cases, you can identify forward-looking statements by terminology such as "expect," "anticipate," "estimate," "plan," "believe, "could," "intend," "p "may," "should," "will" and words of similar import regarding the Company's expectations. Forward-looking statements are only predictions. Actual events or results may differ materially. Although we believe that our expectations are based on reasonable assumptions within the bounds of our knowledge of our industry, business and operations, we cannot guarantee that actual results will not differ materially from our expectations. In evaluating such forward-looking statements, you should specifically consider various factors, including the risks outlined under "Risk Factors." The discussion of risks and uncertainties set forth in this Annual Report on Form 10-K is not necessarily a complete or exhaustive list of all risks facing the Company at any particular point in time. We operate in a highly competitive, highly regulated and rapidly changing environment and our business is in a state of evolution. Therefore, it is likely that new risks will emerge, and that the nature and elements of existing risks will change, over time. It is not possible for management to predict all such risk factors or changes therein, or to assess either the impact of all such risk factors on our business or the extent to which any individual risk factor, combination of factors, or new or altered factors, may cause results to differ materially from those contained in any forward-looking statement. We disclaim any obligation to revise or update any forward-looking statement that may be made from time to time by us or on our behalf.

Unless the context requires otherwise or unless otherwise noted, all references in this Annual Report on Form 10-K to "Celsion" "the Company", "we", "us", or "our" are to Celsion Corporation.

Trademarks

The Celsion Corporation ("Celsion" or "the Company") brand and product names, including but not limited to Celsion® or ThermoDox®, contained in this document are trademarks, registered trademarks or service marks of Celsion Corporation in the United States (U.S.) and certain other countries. This document also contains references to trademarks and service marks of other companies that are the property of their respective owners.

OVERVIEW

Celsion is an oncology drug development company focused on the development of treatments for those suffering with difficult to treat forms of cancer. We are working to develop and commercialize more efficient, effective, targeted chemotherapeutic oncology drugs based on our proprietary heat-activated liposomal technology. The promise of this drug technology is to maximize efficacy while minimizing side-effects common to cancer treatments.

Our lead product ThermoDox® is being evaluated in a Phase III clinical trial for primary liver cancer (the HEAT study), a Phase II clinical trial for colorectal liver metastasis (CRLM) and a Phase II clinical trial for recurrent chest wall breast cancer. ThermoDox® is a liposomal encapsulation of doxorubicin, an approved and frequently used oncology drug for the treatment of a wide range of cancers. Localized heat at mild hyperthermia temperatures (greater than 39.5 degrees Celsius) releases the encapsulated doxorubicin from the liposome enabling high concentrations of doxorubicin to be deposited preferentially in and around the targeted tumor.

On January 31, 2013, we announced that ThermoDox® in combination with radio frequency ablation did not meet the primary endpoint of the HEAT study in patients with hepatocellular carcinoma, also known as primary liver cancer. Specifically, we determined, after conferring with the HEAT study independent Data Monitoring Committee, that the HEAT study did not meet the goal of demonstrating persuasive evidence of clinical effectiveness that could form the basis for regulatory approval in the population chosen for the HEAT study. In the trial, ThermoDox® was well-tolerated with no unexpected serious adverse events. We will continue to follow the patients enrolled in the HEAT study to the secondary endpoint, overall survival. We will also conduct additional analyses of the data from the HEAT study to assess the future strategic value of ThermoDox®.

In 2005, the Company made a strategic decision to divest its medical device business. The Company sold this medical device business to Boston Scientific Corporation (Boston Scientific) in 2007 for net aggregate payments of $43 million, receiving $13 million in 2007 and $15 million in each of 2008 and 2009. Since this divesture, we have dedicated our efforts and resources to the development and commercialization of cancer drugs including tumor-targeting treatments using focused heat energy in combination with heat-activated drug delivery systems. To support our research and development, we have raised gross proceeds of approximately $68 million in equity financings, debt financing and warrant and option exercises in the years 2009 through 2012.

On December 5, 2008, we entered into a development, product supply and commercialization agreement with Yakult Honsha Co. (the Yakult Agreement) under which Yakult was granted the exclusive right to commercialize and market ThermoDox® for the Japanese market. We were paid a $2.5 million up-front licensing fee and may receive additional payments from Yakult upon receipt of marketing approval by the Japanese Ministry of Health, Labor and Welfare as well as upon the achievement of certain levels of sales and approval for new indications. Under the Yakult Agreement, we will receive double digit escalating royalties on the sale of ThermoDox® in Japan, when and if any such sales occur and we also will be the exclusive supplier of ThermoDox® to Yakult. Concurrent with a convertible preferred stock equity financing in January 2011, we amended the Yakult Agreement to provide for up to $4.0 million in an accelerated partial payment to us of a future drug approval milestone which included $2.0 million paid to us upon the closing of the preferred equity financing and an additional $2.0 million conditioned upon the resumption of enrollment of Japanese patients in the Japan cohort of the HEAT study. In consideration of these accelerated milestone payments from Yakult, we agreed to reduce future drug approval milestone payments by approximately forty percent (40%). All other milestone payments are unaffected.

On May 6, 2012, we entered into a long term commercial supply agreement with Zhejiang Hisun Pharmaceutical Co. Ltd. (Hisun) for the production of ThermoDox® in mainland China, Hong Kong and Macau (the China territory). Hisun will be responsible for providing all of the technical and regulatory support services for the manufacture of ThermoDox® in the China territory and we will repay Hisun the related development costs and fees, which we expect to be approximately $2.0 million in total, commencing on the successful completion of three registrational batches of ThermoDox®. On January 18, 2013, we broadened our relationship with Hisun by entering into a technology development contract, pursuant to which Hisun paid us a non-refundable research and development fee of $5.0 million to support our development of ThermoDox® and we will provide research data and other technical support in relation to a regulatory filing by Hisun in China for approval of ThermoDox®. Following our announcement of the HEAT study results on January 31, 2013, we and Hisun are evaluating next steps in relation to ThermoDox®, which include the sub-group analysis of the Chinese cohort of patients in the Phase III clinical trial for primary liver cancer and other activities to further the development of ThermoDox® for the China territory.

Following the announcement of the HEAT study results, we are assessing our product pipeline and research and development priorities. We may evaluate licensing cancer products from third parties for cancer treatments to expand our product pipeline. To the extent we are unable to maintain a broad range of product candidates, our dependence on the success of one or a few product candidates would increase and results such as those announced in relation to the HEAT study on January 31, 2013 will have a more significant impact on our financial prospects, financial condition

and market value. We may also consider and evaluate strategic alternatives, including investment in, or acquisition of, complementary businesses, technologies or products. As demonstrated by the HEAT study results, drug research and development is an inherently uncertain process and there is a high risk of failure at every stage prior to approval. The timing and the outcome of clinical results is extremely difficult to predict. Clinical development successes and failures can have a disproportionate positive or negative impact on our scientific and medical prospects, financial prospects, financial condition and market value.

Our current business strategy includes the possibility of entering into collaborative arrangements with third parties to complete the development and commercialization of our product candidates. In the event that third parties take over the clinical trial process for one or more of our product candidates, the estimated completion date would largely be under the control of that third party rather than us. We cannot forecast with any degree of certainty which proprietary products or indications, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect our development plan or capital requirements. We may also apply for subsidies, grants, or government or agency-sponsored studies that could reduce our development costs.

THERMODOX® (DOXORUBICIN ENCAPSULATED IN HEAT-ACTIVATED LIPOSOME)

Liposomes are manufactured submicroscopic vesicles consisting of a discrete aqueous central compartment surrounded by a membrane bilayer composed of naturally occurring lipids. Conventional liposomes have been designed and manufactured to carry drugs and increase residence time, thus allowing the drugs to remain in the bloodstream for extended periods of time before they are removed from the body. However, the current existing liposomal formulations of cancer drugs and liposomal cancer drugs under development do not provide for the immediate release of the drug and the direct targeting of organ specific tumors, two important characteristics that are required for improving the efficacy of cancer drugs such as doxorubicin. A team of research scientists at Duke University developed a heat-sensitive liposome which rapidly changes its structure when heated to a threshold minimum temperature of 39.5º to 42º Celsius. Heating creates channels in the liposome bilayer that allow an encapsulated drug to rapidly disperse into the surrounding tissue. Through a perpetual, world-wide, exclusive development and commercialization license from Duke University, Celsion has licensed novel, heat-activated liposomal technology that is differentiated from other liposomes through its unique low heat-activated release of encapsulated chemotherapeutic agents.

We intend to use several available focused-heat technologies, such as radio frequency ablation (RFA), microwave energy and high intensity focused ultrasound (HIFU), to activate the release of drugs from our novel heat-sensitive liposomes.

THERMODOX® IN RELATION TO PRIMARY LIVER CANCER
Liver Cancer Overview

Primary liver cancer (hepatocellular carcinoma or “HCC”) is one of the most common and deadliest forms of cancer worldwide. It ranks as the fifth most common solid tumor cancer. It is estimated that up to 90% of liver cancer patients will die within five years of diagnosis. The incidence of primary liver cancer is approximately 28,000 cases per year in the United States, approximately 40,000 cases per year in Europe and is rapidly growing worldwide at approximately 750,000 cases per year. HCC has the fastest rate of growth of all cancers and is projected to be the most prevalent form of cancer by 2020. HCC is commonly diagnosed in patients with longstanding hepatic disease and cirrhosis (primarily due to hepatitis C in the U.S. and Europe and hepatitis B in Asia).

At an early stage, the standard first line treatment for liver cancer is surgical resection of the tumor. Up to 80% of patients are ineligible for surgery or transplantation at time of diagnosis as early stage liver cancer generally has few symptoms and when finally detected the tumor frequently is too large for surgery. There are few alternative treatments, since radiation therapy and chemotherapy are largely ineffective. For tumors generally up to 5 centimeters in diameter, RFA has emerged as the standard of care treatment which directly destroys the tumor tissue through the application of high temperatures by a probe inserted into the core of the tumor. Local recurrence rates after RFA directly correlates to the size of the tumor. For tumors 3 cm or smaller in diameter the recurrence rate has been reported to be 10 – 20%; however, for tumors greater than 3 cm, local recurrence rates of 40% or higher have been observed.

Celsion’s Approach

While RFA uses extremely high temperatures (greater than 80° Celsius) to ablate the tumor, it may fail to treat micro-metastases in the outer margins of the ablation zone because temperatures in the periphery may not be high enough to destroy the cancer cells. Celsion’s ThermoDox® treatment approach is designed to utilize the ability of RFA devices to ablate the center of the tumor while simultaneously thermally activating the ThermoDox® liposome to release its encapsulated doxorubicin to kill remaining viable cancer cells throughout the heated region, including the tumor ablation margins. This novel treatment approach is intended to deliver the drug directly to those cancer cells that survive RFA. This approach will also increase the delivery of the doxorubicin at the desired tumor site while potentially reducing drug exposure distant to the tumor site.

Phase I Clinical Trial - Primary Liver Cancer

In the second quarter of 2007, we completed our first Phase I single dose escalation clinical trial that investigated ThermoDox® in combination with RFA for the treatment of primary and metastatic liver cancer. The study was carried out at the National Cancer Institute (NCI), which is part of the National Institutes of Health (NIH) and Queen Mary Hospital in Hong Kong.

In 2007 we initiated a second Phase I dose escalation study designed to investigate simplification of the current RFA/ThermoDox® treatment regimen including a single vial formulation of ThermoDox® designed for commercial distribution. The study also permitted multiple dosing in liver cancer patients. This clinical trial was completed in 2008.

Phase III Global Clinical Trial - Primary Liver Cancer (The HEAT Study)

The HEAT study for ThermoDox®, in combination with radiofrequency ablation (RFA), is being conducted under a Special Protocol Assessment agreed to with the U.S. Food and Drug Administration (FDA). The Special Protocol Assessment agreed to with the FDA specified Progression Free Survival (PFS) as the HEAT study's primary endpoint. We scheduled a meeting with the HEAT study independent Data Monitoring Committee (DMC) on January 30, 2013 in order to conduct an analysis of the HEAT study's PFS endpoint. Following review by the DMC, on January 31, 2013, we announced that ThermoDox® in combination with RFA did not meet the primary endpoint of the HEAT study in patients with hepatocellular carcinoma (HCC), also known as primary liver cancer. Specifically, we determined, after conferring with the DMC, that the HEAT study did not meet the goal of demonstrating persuasive evidence of clinical effectiveness that could form the basis for regulatory approval in the population chosen for the HEAT study. The HEAT study was designed to show a 33 percent improvement in PFS with 80 percent power and a p-value = 0.05. In the trial, ThermoDox® was well-tolerated with no unexpected serious adverse events. We will continue following the patients enrolled in the HEAT study to the secondary endpoint, overall survival.

We will also conduct additional analyses of the data from the HEAT study to assess the future strategic value of ThermoDox®. We plan to continue with related partnerships, such as our arrangement with Zhejiang Hisun Pharmaceutical Co. Ltd. (Hisun) described below, to the extent feasible. In addition, we will assess our product pipeline and research and development priorities. As we evaluate strategic alternatives, we will need to consider a number of factors, including investment in, or acquisition of, complementary businesses, technologies or products, possible capital raising transactions, partnering opportunities and working capital requirements. We expect that the strength of our balance sheet will afford us the opportunity to evaluate our future development plans. However, as demonstrated by the HEAT study results announced on January 31, 2013, drug research and development is an inherently uncertain process and there is a high risk of failure at every stage prior to approval. The timing and the outcome of clinical results is extremely difficult to predict. Clinical development successes and failures can have a disproportionate positive or negative impact on our scientific and medical prospects, financial prospects, financial condition and market value.

Prior to the HEAT study results announced on January 31, 2013, and consistent with our global regulatory strategy, we announced on April 23, 2012, that randomization of at least 200 patients in the People's Republic of China (PRC), a requirement for registrational filing in the PRC, had been completed. The HEAT study had already enrolled a sufficient number to support registrational filings in South Korea and Taiwan, two important markets for ThermoDox®. The future of these activities will be part of our strategic planning as we analyze the data announced on January 31, 2013 and will affect our partnership with Hisun described below.

On May 6, 2012, we entered into a long term commercial supply agreement with Hisun for the production of ThermoDox® in mainland China, Hong Kong and Macau (the China territory). In accordance with the terms of the

agreement, Hisun will be responsible for providing all of the technical and regulatory support services, including the costs of all technical transfer, registrational and bioequivalence studies, technical transfer costs, Celsion consultative support costs and the purchase of any necessary equipment and additional facility costs necessary to support capacity requirements for the manufacture of ThermoDox®. We will repay Hisun for the aggregate amount of these development costs and fees commencing on the successful completion of three registrational batches of ThermoDox®. The batches are expected to be successfully delivered in mid-2013, and repayment of the development costs will occur at any time on or prior to the fourth year anniversary of the signing of the agreement, which we expect in total to be approximately $2.0 million. Hisun is also obligated to certain performance requirements under the agreement. The agreement is initially limited to a percentage of the production requirements of ThermoDox® in the China territory with Hisun retaining an option for additional global supply after local regulatory approval in the China territory. In addition, Hisun will collaborate with us in relation to the regulatory approval activities for ThermoDox® with the China State Food and Drug Administration (SFDA).

On January 18, 2013, we broadened our relationship with Hisun by entering into a technology development contract, pursuant to which Hisun paid us a non-refundable research and development fee of $5.0 million to support our development of ThermoDox® and we will provide research data and other technical support in relation to a regulatory filing by Hisun with the SFDA for approval of ThermoDox® for manufacturing and sale in the China territory. On January 18, 2013, we also entered into an exclusive option agreement with Hisun, terminable at any time by Hisun, under which we granted Hisun an option to enter into an exclusive license agreement with us for the manufacturing and commercialization of ThermoDox® with respect to all indications in the China territory under the terms and conditions set forth in the exclusive option agreement and other customary terms and conditions to be set forth in the license agreement, if any. Hisun agreed to pay us an additional $5.0 million within sixty days after the signing of the exclusive option agreement if it has not been terminated within such time period. The exclusive option agreement contemplated payments of an upfront license fee, milestone payments and royalties to us if the exclusive license agreement were entered into.

Following our announcement on January 31, 2013 that ThermoDox® in combination with RFA did not meet the primary endpoint of the Phase III clinical trial for primary liver cancer, Hisun elected to terminate the exclusive option agreement and not to pursue the option to enter into an exclusive license agreement with us for the China territory, which termination took effect as of February 1, 2013. As a result of the termination, we will not receive the additional $5 million payment or any future payment originally contemplated by the exclusive option agreement. The technology development contract will remain in effect while Hisun and we continue to collaborate and are evaluating next steps in relation to ThermoDox®, which include the sub-group analysis of the Chinese cohort of patients in the Phase III clinical trial for primary liver cancer and other activities to further the development of ThermoDox® for the China territory.

THERMODOX® IN RELATION TO CANCERS OTHER THAN PRIMARY LIVER CANCER

In 2009, we formed a joint research agreement with Philips Healthcare, a division of Royal Philips Electronics, to evaluate the combination of Philips' high intensity focused ultrasound (HIFU) with ThermoDox® to determine the potential of this combination to treat a broad range of cancers. As a result of our progress to clinical development status, we are currently negotiating a new agreement with Philips. In August 2012, we announced FDA clearance to commence a Phase II study of ThermoDox® and Philip's Sonalleve® MR-Guided HIFU technology for the palliation of painful metastases to the bone caused by lung, prostate or breast cancers.

In June 2012, we announced a collaboration with the University of Oxford to begin an early phase clinical study of ThermoDox® plus HIFU in the treatment of metastatic liver cancer. The trial, which is supported by the National Institute for Health Research Oxford Biomedical Research Centre, will be carried out as a multidisciplinary collaboration between us, the Oxford University Institute of Biomedical Engineering and the Oxford University Hospitals NHS Trust. This early phase clinical study is being finalized and will require approval from a local ethics committee. Enrollment of the first patient in this clinical study is targeted for the first half of 2013.

We are also working with the Focused Ultrasound Foundation in preclinical studies designed to explore the use of ThermoDox® in combination with MR-guided HIFU for the treatment of pancreatic cancer. The studies are being conducted at the University of Washington (UW) School of Medicine. The UW research is expected to include animal models to confirm the ability of HIFU to target high concentrations of doxorubicin in proprietary pancreatic cancer cell lines and in vivo studies to assess the response to these tumors treated using ThermoDox® with and without HIFU-induced hyperthermia. We believe that these collaborations are just the beginning for combining important device technologies such as HIFU with our low heat activated liposomal technology.

In addition to the collaborations outlined above, we have two ongoing clinical studies: a Phase II study of ThermoDox® in combination with hyperthermia for the treatment of recurrent chest wall (RCW) breast cancer (the

DIGNITY study) and a Phase II study of ThermoDox® in combination with thermal ablation for the treatment of colorectal liver metastases.

Recurrent Chest Wall (RCW) Breast Cancer Overview

Breast cancer is the most common malignancy in women in both the United States and the world. Despite a variety of therapeutic approaches, up to 40% of the estimated 95,000 patients in the United States undergoing a mastectomy as their primary treatment will develop locally recurrent RCW breast cancer. There is currently no effective chemotherapeutic standard of care for RCW breast cancer and as a result, many of these patients will die within two years of the recurrence. Patients with RCW breast cancer suffer from disfiguring tumors and other symptoms including pain, foul-smelling wounds, and a very visual reminder of tumor progression.

Celsion's Approach

We have been actively seeking a targeted localized treatment for breast cancer using ThermoDox® in conjunction with localized microwave hyperthermia to treat RCW breast cancer. Studies at Duke University and other centers have indicated that heat may improve the therapeutic action of non-temperature sensitive liposomal doxorubicin formulations in advanced loco-regional breast cancer. Our liposomal encapsulated doxorubicin is released by heat generated from an external microwave tissue hyperthermia device that is placed on a woman's chest. The microwave hyperthermia heats the target to a temperature adequate to activate ThermoDox® but not to ablate the tissue like RFA. Upon heating to 39.5º to 42º C, a significant concentration of doxorubicin is released directly to the tumor. As in our liver cancer program, we use a commercially available thermotherapy device to heat the target tissue and activate ThermoDox® at the desired target site.

Microwave hyperthermia as a separate standalone treatment has been found to have the ability to kill breast cancer cells. Because breast cancer cells have higher water content than surrounding normal cells, the tumor is heated to a greater extent than normal breast tissue and is selectively destroyed. Thus heating cancer cells with a microwave device for sixty minutes at 43°C has been found to be tumoricidal. We expect that the combination of microwave hyperthermia and ThermoDox® will be more efficacious than microwave hyperthermia alone or treatment with existing non-heat activated liposomal formulations.

Breast Cancer Clinical Phase I/II Clinical Trial - The DIGNITY Study

In 2009, the Company commenced an open label, dose-escalating ThermoDox® Phase I/Phase II clinical trial for patients with RCW breast cancer – (the DIGNITY study). The DIGNITY study is designed to establish a safe therapeutic dose in Phase I, and in Phase II to demonstrate local control, including complete and partial responses, and stable disease as its primary endpoint. The DIGNITY study is also planned to evaluate kinetics in ThermoDox® produced from more than one manufacturing site.

The Company completed enrollment of the Phase I portion of the study in 2010 and an independent Data Safety Monitoring Board declared 50mg/m2 to be the Phase II dose. The Phase II portion of the DIGNITY study protocol has been reviewed by the FDA and enrollment commenced in the first quarter of 2013.

Duke University conducted a Phase I dose escalating ThermoDox® study in patients with RCW breast cancer and has presented preliminary results from the 16 enrolled patients that characterize the safety of the drug in RCW patients and the feasibility of ThermoDox® administration in these patients. Furthermore, data presented by Duke suggested a beneficial clinical effect of ThermoDox®. Duke reported that the combination of ThermoDox® with heat showed evidence in the patients of clinical activity and two of the six patients who were treated with the 30mg/m 2 dosage had a complete local response.

Colorectal Liver Metastases Overview

The American Cancer Society estimates that there were over 141,000 new cases of colorectal cancer and about 51,000 colorectal cancer deaths in 2010. Up to 25% of patients with colorectal cancer present with liver metastases and another 50% develop liver metastases within 5 years. Median survival of patients with colorectal liver metastases (CRLM) is 6-12 months if untreated. While hepatic resection is potentially curative, most CRLM patients are inoperable and therefore RFA is a commonly used local treatment modality. Because RFA is both efficacious and widely accepted, a rational strategy is to attempt to increase its efficacy for medium (3.1-5.0 cm) and large (> 5.0 cm) CRLM tumors with an adjuvant such as ThermoDox®.

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Celsion's Approach

The liver is a common site of metastases for cancers of the colon and rectum, as it provides a favorable environment for their growth and proliferation. Addressing these metastases allows us to improve three- and five-year survival rates among patients with this aggressive disease. While RFA can be effective in treating these tumors, it is often limited to smaller metastases within the liver. Adding ThermoDox® to RFA as adjuvant therapy is a combination which has demonstrated early clinical promise in treating larger tumors and multifocal disease.

Phase II Clinical Trial – The ABLATE Study

In 2011, we initiated a Phase II study of ThermoDox® in combination with RFA for the treatment of colorectal liver metastases. In February 2012, we announced the enrollment of our first patient in the randomized Phase II study of ThermoDox®, in combination with RFA, for the treatment of colorectal liver metastases (the ABLATE study). The ABLATE Study originally was expected to enroll up to 88 patients with colorectal cancer metastasized to the liver. Patients were to be randomized to receive RFA plus ThermoDox® or RFA alone for the treatment of their liver tumors. In December 2012, the ABLATE study was amended to an open label study expected to enroll up to 41 patients in combination with thermal ablation. All patients will receive ThermoDox® in combination with ablation using either Radiofrequency ablation (RFA) or microwave ablation (MWA) devices. The primary endpoint is based on one year local tumor control, with secondary endpoints of time to progression and overall survival.

PRODUCT FEASIBILITY

We developed a stable heat activated liposomal formulation of docetaxel and evaluated the liposomal docetaxel formulation in animal studies that demonstrated a statistically significant tumor inhibition effect when compared both to free docetaxel and a non-heat sensitive formulation. We continue to evaluate its formulation. In addition, the Company has developed a third stable heat activated liposomal formulation. This drug encapsulates carboplatin and in early studies has shown favorable release characteristics and formulation stability.

In September 2010, we announced the award of a competitive Phase I Small Business Innovation and Research (SBIR) grant from the National Institutes of Health (NIH), to support the proposal, "New Thermal Sensitive Carboplatin Liposomes for Cancer". This funding supports our efforts to develop a proprietary heat-activated liposomal technology in combination with carboplatin, an approved and frequently used oncology drug for treatment of a wide range of cancers. We received approximately $184,000 collectively from this grant in 2011 and 2012 to support formulation development and preclinical efficacy studies in collaboration with Duke University.

BUSINESS STRATEGY

An element of our business strategy has been to pursue, as resources permit, the research and development of a range of product candidates for a variety of indications. We may also evaluate licensing cancer products from third parties for cancer treatments to expand our current product pipeline. This is intended to allow us to diversify the risks associated with our research and development expenditures. To the extent we are unable to maintain a broad range of product candidates, our dependence on the success of one or a few product candidates would increase and results such as those announced in relation to the HEAT study on January 31, 2013 will have a more significant impact on our financial prospects, financial condition and market value. We may also consider and evaluate strategic alternatives, including investment in, or acquisition of, complementary businesses, technologies or products. As demonstrated by the Heat study results, drug research and development is an inherently uncertain process and there is a high risk of failure at every stage prior to approval. The timing and the outcome of clinical results is extremely difficult to predict. Clinical development successes and failures can have a disproportionate positive or negative impact on our scientific and medical prospects, financial prospects, financial condition and market value.

Our current business strategy includes the possibility of entering into collaborative arrangements with third parties to complete the development and commercialization of our product candidates. In the event that third parties take over the clinical trial process for one or more of our product candidates, the estimated completion date would largely be under the control of that third party rather than us. We cannot forecast with any degree of certainty which proprietary products or indications, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect our development plan or capital requirements. We may also apply for subsidies, grants or government or agency-sponsored studies that could reduce our development costs.

As a result of the uncertainties discussed previously in this Annual Report on Form 10K, among others, we are unable to estimate the duration and completion costs of our research and development projects or when, if ever, and to what extent we will receive cash inflows from the commercialization and sale of a product if one of our drug candidates receives regulatory approval for marketing, if at all. Our inability to complete our research and development projects in a timely manner or to obtain positive results in our clinical trials, as well as any failure to enter into collaborative agreements when appropriate, could significantly increase our capital requirements and could adversely impact our liquidity. While our estimated future capital requirements are uncertain and could increase or decrease as a result of many factors, including the extent to which we choose to advance our research, development and clinical trials or whether we are in a position to pursue manufacturing or commercialization activities, it is clear we will need significant additional capital to develop our product candidates through clinical development, manufacturing and commercialization. We do not know whether we will be able to access additional capital when needed or on terms favorable to us or our stockholders. Our inability to raise additional capital, or to do so on terms reasonably acceptable to us, would jeopardize the future success of our business.

RESEARCH AND DEVELOPMENT EXPENDITURES

We are engaged in a limited amount of research and development in our own facilities and also sponsor research programs in partnership with various research institutions, including the National Cancer Institute and Duke University. The majority of the spending in research and development is for the funding of ThermoDox® clinical trials. Research and development expenses were approximately $15.8 million, $19.9 million and $14.7 million for the years ended December 31, 2012, 2011 and 2010, respectively. See Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operation for additional information regarding expenditures related to our research and development programs.

FDA REGULATION

Research and Development

Our research and development activities, pre-clinical tests and clinical trials are subject to extensive regulation by the FDA as would the manufacturing, marketing and labeling of our products, if any. The Federal Food, Drug and Cosmetic Act, the Public Health Service Act and the regulations promulgated by the FDA govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, record keeping, approval, advertising, promotion, import and export of our products.

Under these statutes, our heat-activated liposomes will be regulated as a new drug. The steps ordinarily required before such products can be marketed in the U.S. include (a) pre-clinical and clinical studies; (b) the submission to the FDA of an application for, or approval, as an Investigational New Drug application (IND), which must become effective before human clinical trials may commence; (c) adequate and well-controlled human clinical trials to establish the safety and efficacy of the product; (d) the submission to the FDA of a New Drug Application (NDA); and (e) FDA approval of the application, including approval of all product labeling.

Pre-clinical tests include laboratory evaluation of product chemistry, formulation and stability, as well as animal studies, to assess the potential safety and efficacy of the product. Pre-clinical safety tests must be conducted by laboratories that comply with FDA regulations regarding good laboratory practice. The results of pre-clinical tests are submitted to the FDA as part of an IND and are reviewed by the FDA before the commencement of human clinical trials. Submission of an IND will not necessarily result in FDA authorization to commence clinical trials, and the absence of FDA objection to an IND does not necessarily mean that the FDA will ultimately approve an NDA or that a product candidate otherwise will come to market.

Clinical trials involve the administration of therapy to humans under the supervision of a qualified principal investigator. Clinical trials must be conducted in accordance with good clinical practices under protocols submitted to the FDA as part of an IND. Also, each clinical trial must be approved and conducted under the auspices of an internal review board (IRB), and with patient informed consent. An IRB will consider, among other things, ethical factors and the safety of human subjects and the possible liability of the institution conducting the clinical trials.

Clinical trials are typically conducted in two or three sequential phases, but the phases may overlap. Phase I clinical trials involve the initial introduction of the therapy to a small number of subjects. Phase II trials are generally larger trials conducted in the target population. Phase II studies may serve as the pivotal trials, providing the demonstration of safety and effectiveness required for approval. However, the FDA may require additional, post-market trials as a condition of approval. In the case of drugs and biological products, Phase II clinical trials generally are conducted in a target patient population to gather evidence about the pharmacokinetics, safety and biological or clinical efficacy of the drug for specific indications, to determine dosage tolerance and optimal dosage and to identify possible adverse effects and safety risks. When a drug or biological compound has shown evidence of efficacy and an acceptable safety profile in Phase II evaluations, Phase III clinical trials are undertaken to serve as the pivotal trials to demonstrate clinical efficacy and safety in an expanded patient population.

There can be no assurance that any of our clinical trials will be completed successfully within any specified time period or at all. On January 31, 2013, we announced that ThermoDox® in combination with RFA did not meet the primary endpoint of the HEAT study in patients with hepatocellular carcinoma (HCC), also known as primary liver cancer. Specifically, we determined, after conferring with the DMC, that the HEAT study did not meet the goal of demonstrating persuasive evidence of clinical effectiveness that could form the basis for regulatory approval in the population chosen for the HEAT study.

Either the FDA or we may suspend clinical trials at any time, if the FDA, our Data Monitoring Committee, or we conclude that clinical subjects are being exposed to an unacceptable health risk or for other reasons. The FDA inspects and reviews clinical trial sites, informed consent forms, data from the clinical trial sites (including case report forms and record keeping procedures) and the performance of the protocols by clinical trial personnel to determine compliance with good clinical practices. The FDA also examines whether there was bias in the conduct of clinical trials. The conduct of clinical trials is complex and difficult, especially in pivotal Phase II or Phase III trials. There can be no assurance that the design or the performance of the pivotal clinical trial protocols or any of our current or future product candidates will be successful.

The results of pre-clinical studies and clinical trials, if successful, are submitted in an application for FDA approval to market the drug or biological product for a specified use. The testing and approval process requires substantial time and effort, and there can be no assurance that any approval will be granted for any product at any time, according to any schedule, or at all. The FDA may refuse to accept or approve an application if it believes that applicable regulatory criteria are not satisfied. The FDA may also require additional testing for safety and efficacy. Moreover, if regulatory approval is granted, the approval will be limited to specific indications. There can be no assurance that any of our current product candidates will receive regulatory approvals for marketing or, if approved, that approval will be for any or all of the indications that we request.

The FDA is authorized to require various user fees, including NDA fees (currently up to $1.4 million). The FDA may waive or reduce such user fees under certain circumstances, such as orphan drug designation for a product candidate. We will seek waivers or reductions of user fees where possible, but we cannot be assured that we will be eligible for any such waiver or reduction.

Post-Approval Requirements

After receipt of necessary regulatory approvals, if any, for initial manufacturing and sale of our product candidates, our contract manufacturing facilities and products are subject to ongoing review and periodic inspection. Each U.S. drug manufacturing establishment must be registered with the FDA. Manufacturing establishments in the U.S. and abroad are subject to inspections by the FDA and must comply with current good manufacturing practices. In order to ensure full technical compliance with such practices, manufacturers must expend funds, time and effort in the areas of production and quality control. In addition, the FDA may impose post-approval requirements on us, including the requirement that we conduct specified post-marketing studies.

Inspections

We are subject to the periodic inspection of our clinical trials, facilities, procedures and operations and/or the testing of our products by the FDA to determine whether our systems and processes are in compliance with FDA regulations. Following such inspections, the FDA may issue notices on Form 483 and warning letters that could cause us to modify certain activities identified during the inspection. A Form 483 notice is generally issued at the conclusion of an FDA inspection and lists conditions the FDA inspectors believe may violate FDA regulations. FDA guidelines specify that a warning letter only is to be issued for violations of “regulatory significance” for which the failure to adequately

and promptly achieve correction may be expected to result in an enforcement action.

Recalls

The FDA has the authority to require the recall of our products in the event of material deficiencies or defects in manufacture. A governmentally mandated recall, or a voluntary recall by us, could result from a number of events or factors, including component failures, manufacturing errors, instability of product or defects in labeling.

Other FDA Regulations

We are also subject to recordkeeping and reporting regulations. These regulations require, among other things, the reporting to the FDA of adverse events alleged to have been associated with the use of a product or in connection with certain product failures.

Labeling and promotional activities are also regulated by the FDA. We must also comply with record keeping requirements as well as requirements to report certain adverse events involving our products. The FDA can impose other post-marketing controls on us as well as our products including, but not limited to, restrictions on sale and use, through the approval process, regulations and otherwise.

PRODUCT LIABILITY AND INSURANCE

Our business exposes us to potential product liability risks that are inherent in the testing, manufacturing and marketing of human therapeutic products. We presently have product liability insurance limited to $10 million per incident, and if we were to be subject to a claim in excess of this coverage or to a claim not covered by our insurance and the claim succeeded, we would be required to pay the claim out of our own limited resources.

COMPETITION

Competition in the discovery and development of new methods for treating and preventing disease is intense. We face, and will continue to face, intense competition from pharmaceutical and biotechnology companies, as well as academic and research institutions and government agencies both in the U.S. and abroad. We face significant competition from organizations pursuing the same or similar technologies used by us in our drug discovery efforts and from organizations developing pharmaceuticals that are competitive with our product candidates.

Most of our competitors, either alone or together with their collaborative partners, have substantially greater financial resources and larger research and development staffs than we do. In addition, most of these organizations, either alone or together with their collaborators, have significantly greater experience than we do in developing products, undertaking preclinical testing and clinical trials, obtaining FDA and other regulatory approvals of products, and manufacturing and marketing products. Mergers and acquisitions in the pharmaceutical industry may result in even more resources being concentrated among our competitors. These companies, as well as academic institutions, governmental agencies, and private research organizations, also compete with us in recruiting and retaining highly qualified scientific personnel and consultants. Our ability to compete successfully with other companies in the pharmaceutical and biotechnology field also depends on the status of our collaborations and on the continuing availability of capital to us.

ThermoDox®

Although there are many drugs and devices marketed and under development for the treatment of cancer, the Company is not aware of any other heat activated drug delivery product either being marketed or in human clinical development.

LICENSES, PATENTS, TRADEMARKS AND REGULATORY EXCLUSIVITY

In 1999, the Company entered into a license agreement with Duke University under which we received exclusive rights, subject to certain exceptions, to commercialize and use Duke’s thermo-liposome technology. In relation to these liposome patents licensed from Duke University, we have filed two additional patents related to the formulation and use of liposomes. We have also licensed from Valentis, CA certain global rights covering the use of pegylation for

temperature sensitive liposomes.

In 2003, our obligations under the license agreement with Duke University with respect to the testing and regulatory milestones and other licensed technology performance deadlines were eliminated in exchange for a payment of shares of our common stock. The license agreement continues to be subject to agreements to pay a royalty based upon future sales. In conjunction with the patent holder, we have filed international applications for a certain number of the United States patents.

Our rights under the license agreement with Duke University extend for the longer of 20 years or the end of any term for which any relevant patents are issued by the United States Patent and Trademark Office. Currently, the Company has rights to Duke's patent for its thermo-liposome technology in the United States, which expires in 2018, and to future patents received by Duke in Canada, Europe, Japan and Australia, where it has patent applications have been granted. The European grant provides coverage in the European Community. For this technology, the Company's license rights are worldwide, including the United States, Canada, certain European countries, Australia, Hong Kong, and Japan.

In 2009, the FDA granted orphan drug designation for ThermoDox® for the treatment of HCC. Orphan drug designation entitles the Company to seven years of market exclusivity following FDA approval, if any, FDA assistance in clinical trial design, a reduction in FDA user fees, U.S. tax credits related to development expenses as well as the opportunity to apply for funding from the U.S. government to defray the costs of clinical trial expenses. In 2011, the European Commission granted orphan drug designation for ThermoDox® for the treatment of HCC in Europe. As established by the European Medicine Agency ("EMA"), orphan drug designation provides for scientific advice and regulatory assistance from the EMA, direct access to centralized marketing authorization and certain financial incentives, such as reduction of fees associated with pre-authorization inspections and marketing authorization application fees. The orphan drug designation in Europe also provides 10 years of market exclusivity subsequent to product approval.

On February 5, 2013, Celsion announced that its proprietary patent application, "Method of Storing Nanoparticle Formulations," had been allowed in China and granted in South Korea and Australia. Celsion holds an exclusive license agreement with Duke University for its temperature-sensitive liposome technology that covers the ThermoDox® formulation. Celsion's newly issued patents pertain specifically to methods of storing stabilized, temperature-sensitive liposomal formulations and will assist in the protection of global rights. These patents will extend the overall term of the ThermoDox® patent portfolio to 2026. The patents in these three countries are the first in this family, which includes pending applications in the U.S., Europe and additional key commercial geographies in Asia. This extended patent runway to 2026 allows for the evaluation of future development activities for ThermoDox® and Celsion's heat-sensitive liposome technology platform.

In addition to the rights available to us under completed or pending license agreements, we rely on our proprietary know-how and experience in the development and use of heat for medical therapies, which we seek to protect, in part, through proprietary information agreements with employees, consultants and others. There can be no assurance that these proprietary information agreements will not be breached, that we will have adequate remedies for any breach, or that these agreements, even if fully enforced, will be adequate to prevent third-party use of the Company's proprietary technology. Please refer to Item 1A, Risk Factors, including, but not limited to, "We rely on trade secret protection and other unpatented proprietary rights for important proprietary technologies, and any loss of such rights could harm our business, results of operations and financial condition." Similarly, we cannot guarantee that technology rights licensed to us by others will not be successfully challenged or circumvented by third parties, or that the rights granted will provide us with adequate protection. Please refer to Item 1A, Risk Factors, including, but not limited to, "Our business depends on licensing agreements with third parties to permit us to use patented technologies. The loss of any of our rights under these agreements could impair our ability to develop and market our products."

EMPLOYEES

As of March 15, 2013, we employed 19 full-time employees. We also maintain active independent contractor relationships with various individuals, most of whom have month-to-month or annual consulting agreements. None of our employees are covered by a collective bargaining agreement, and we consider our relations with our employees to be good.

COMPANY INFORMATION

Celsion was founded in 1982 and is a Delaware corporation. Our principal executive offices are located at 997 Lenox Drive, Suite 100, Lawrenceville, NJ 08648. Our telephone number is (609) 896-9100. The Company's website is www.celsion.com. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated in, this Annual Report.

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AVAILABLE INFORMATION

We make available free of charge through our website, www.celsion.com, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission (the "SEC"). In addition, our website includes other items related to corporate governance matters, including, among other things, our corporate governance principles, charters of various committees of the Board of Directors, and our code of business conduct and ethics applicable to all employees, officers and directors. We intend to disclose on our internet website any amendments to or waivers from our code of business conduct and ethics as well as any amendments to its corporate governance principles or the charters of various committees of the Board of Directors. Copies of these documents may be obtained, free of charge, from our website. In addition, copies of these documents will be made available free of charge upon written request. The public may read and copy any materials filed with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file periodic and other reports electronically with the Securities and Exchange Commission. The address of that site is www.sec.gov. The information available on or through our website is not a part of this Annual Report on Form 10-K and should not be relied upon.

LIQUIDITY AND CAPITAL RESOURCES

During 2012, we received approximately $10.2 million of gross proceeds from the exercise of warrants to purchase approximately 3.8 million shares of the Company's common stock and $0.7 million of gross proceeds from the exercise of options to purchase approximately 0.2 million shares of the Company's common stock.

On June 27, 2012, the Company entered into a Loan and Security Agreement (the "Credit Agreement") with Oxford Finance LLC ("Oxford") and Horizon Technology Finance Corporation ("Horizon"). The Credit Agreement provides for a secured term loan of up to $10 million, with 50% of any loans to be funded by Oxford and 50% to be funded by Horizon. The aggregate loan amount may be advanced in two tranches of $5 million each. The first tranche (the "Term A Loan") of $5 million was made available to the Company on June 27, 2012 and the second tranche (the "Term B Loan") was to be made available, if at all, during the period beginning on the date that the Company achieved positive data in its Phase III clinical trial of RFA and ThermoDox® (the HEAT study) and ending on March 31, 2013. On January 31, 2013, the Company announced it did not meet the primary endpoint of the HEAT study, therefore the Term B Loan will not be drawn down.

The Term A Loan is scheduled to mature on October 15, 2015. The proceeds of the Credit Agreement will be used to fund the Company's working capital and general corporate purposes. The obligations under the Credit Agreement are secured by substantially all assets of the Company other than its intellectual property and certain other agreed-upon exclusions. The Term A Loan bears interest at a fixed rate of 11.75%. For an initial period extending for the Term A Loan through May 1, 2013, the Company is only required to make interest payments, after which the Company is required to make consecutive equal monthly payments of principle and interest to each lender as calculated pursuant to the Credit Agreement. The Company was also obligated to pay other customary facility fees for a credit facility of this size and type.

As a fee in connection with the Credit Agreement, the Company issued warrants to Horizon and Oxford to purchase the number of shares of the Company's common stock equal to 3% of each loan amount divided by the exercise price equal to $2.92 per share, which is calculated as the average NASDAQ closing price of Celsion common stock for the three days prior to the funding of the loan amount. This results in 51,370 warrant shares issuable in connection with the Term A Loan. The warrants are immediately exercisable for cash or by net exercise and will expire seven years

after their issuance.

RECENT EVENTS

On January 31, 2013, we announced that ThermoDox® in combination with RFA did not meet the primary endpoint of the HEAT study in patients with hepatocellular carcinoma, also known as primary liver cancer. Specifically, we determined, after conferring with the DMC, that the HEAT study did not meet the goal of demonstrating persuasive evidence of clinical effectiveness that could form the basis for regulatory approval in the population chosen for the HEAT study. The HEAT study was designed to show a 33 percent improvement in PFS with 80 percent power and a p-value = 0.05. In the trial, ThermoDox® was well-tolerated with no unexpected serious adverse events. We will continue following the patients enrolled in the HEAT study to the secondary endpoint, overall survival.

Hisun technology development contract

On January 18, 2013, we entered into a technology development contract with Hisun, pursuant to which Hisun paid us a non-refundable research and development fee of $5 million to support our development of ThermoDox® and we will provide research data and other technical support in relation to a regulatory filing by Hisun with the SFDA for approval of ThermoDox® for manufacturing and sale in mainland China, Hong Kong and Macau. On January 18, 2013, we also entered into an exclusive option agreement with Hisun, terminable at any time by Hisun, under which we granted Hisun an option to enter into an exclusive license agreement with us for the manufacturing and commercialization of ThermoDox® with respect to all indications in the China territory under the terms and conditions set forth in the exclusive option agreement and other customary terms and conditions to be set forth in the license agreement, if any. Hisun agreed to pay us an additional $5 million within sixty days after the signing of the exclusive option agreement if it has not been terminated within such time period. The exclusive option agreement contemplated payments of an upfront license fee, milestone payments and royalties to us if the exclusive license agreement were entered into.

Following our announcement on January 31, 2013 that ThermoDox® in combination with RFA did not meet the primary endpoint of the Phase III clinical trial for primary liver cancer, Hisun elected to terminate the exclusive option agreement and not to pursue the option to enter into an exclusive license agreement with us for the China territory, which termination took effect as of February 1, 2013. As a result of the termination, we will not receive the additional $5 million payment or any future payment originally contemplated by the exclusive option agreement. The technology development contract will remain in effect while Hisun and we continue to collaborate and are evaluating next steps in relation to ThermoDox®, which include the sub-group analysis of the Chinese cohort of patients in the Phase III clinical trial for primary liver cancer and other activities to further the development of ThermoDox® for mainland China, Hong Kong and Macau.

“At-the-market” Offerings

On February 1, 2013, the Company entered into a Controlled Equity Offering SM Sales Agreement (the “ATM Agreement”) with Cantor Fitzgerald & Co., as sales agent (“Cantor”), pursuant to which Celsion may offer and sell, from time to time, through Cantor, shares of our common stock having an aggregate offering price of up to $25.0 million (the “ATM Shares”). The ATM Shares will be issued pursuant to the Company’s previously filed and effective Registration Statement on Form S-3 the base prospectus dated September 14, 2012, filed as part of such Registration Statement, and the prospectus supplement dated February 1, 2013, filed by the Company with the Securities and Exchange Commission. Under the Agreement, Cantor may sell ATM Shares by any method deemed to be an “at-the-market” offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, including sales made directly on The NASDAQ Capital Market, on any other existing trading market for the our common stock or to or through a market maker. From February 1, 2013 through February 25, 2013, the Company sold and issued 5,381,670 ATM shares under the ATM Agreement, receiving approximately $6.8 million in net proceeds.

Celsion intends to use the net proceeds from the offering for general corporate purposes, including research and development activities, capital expenditures and working capital. The Company is not obligated to sell any ATM Shares under the ATM Agreement. Subject to the terms and conditions of the ATM Agreement, Cantor will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal law, rules and regulations and the rules of The NASDAQ Capital Market, to sell ATM Shares from time to time based upon the Company’s instructions, including any price, time or size limits or other customary parameters or conditions Celsion may impose. In addition, pursuant to the terms and conditions of the ATM Agreement and subject to the instructions of Celsion, Cantor may sell ATM Shares by any other method permitted by law, including in privately negotiated transactions.

The ATM Agreement will terminate upon the earlier of (i) the sale of Shares under the ATM Agreement having an aggregate offering price of $25.0 million and (ii) the termination of the ATM Agreement by Cantor or the Company. The ATM Agreement may be terminated by Cantor or Celsion at any time upon 10 days' notice to the other party, or by Cantor at any time in certain circumstances, including the occurrence of a material adverse change in Celsion. The Company will pay Cantor a commission of 3.0% of the aggregate gross proceeds from each sale of ATM Shares and has agreed to provide Cantor with customary indemnification and contribution rights. The Company also agreed to reimburse Cantor for legal fees and disbursements, not to exceed $50,000 in the aggregate, in connection with entering into the ATM Agreement. In connection with the preferred stock offering discussed below, the Company agreed to not sell any ATM Shares for a period of one year from February 26, 2013.

Registered Direct Offering

On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain institutional investors, pursuant to which the Company agreed to sell, in a registered offering, an aggregate of 15,000.00422 shares of its Series A 0% convertible preferred stock and the warrants to purchase shares of its common stock, for an aggregate

purchase price of approximately $15.0 million (the Preferred Stock Offering). The closing of the Preferred Stock Offering occurred on February 26, 2013, in which the Company received approximately $15.0 million in gross proceeds. Subject to certain ownership limitations, shares of Series A 0% convertible preferred stock are convertible, at the option of the holder thereof, into an aggregate of up to 12,072,438 shares of common stock, and the warrants are exercisable to purchase an aggregate of up to 6,036,219 shares of common stock. Each warrant has an exercise price of $1.18 per share, equal to the closing bid price of common stock on February 21, 2013. The warrants are immediately exercisable and expire five years after its issuance. As of March 15, 2013, the Company has issued an aggregate of 8,018,112 shares of common stock upon conversion of 9,963 shares of the Series A 0% convertible preferred stock.

Warrant and option exercises

During the first quarter of 2013 thus far, we received approximately $0.4 million of gross proceeds from the exercise of warrants and options to purchase 120,516 shares of the Company's common stock.

We believe that our cash and investment resources of $23.1 million on hand at December 31, 2012, as well as the $26 million of net proceeds the Company collectively received thus far in the first quarter of 2013 from warrant exercises, the non-refundable payment from Hisun under the technology development agreement, the ATM Agreement and the Preferred Stock Offering, is sufficient to fund operations through 2015. However, our future capital requirements will depend upon numerous unpredictable factors, including, without limitation, the cost, timing and outcomes of clinical studies and regulatory reviews of our proprietary drug candidates, our efforts to implement new collaborations, licenses and strategic transactions, general and administrative expenses, capital expenditures and other uses of cash. To complete the development and commercialization of our products, we will need to raise substantial amounts of additional capital to fund our operations. We do not have any committed sources of financing and cannot give assurance that alternate funding will be available in a timely manner, on acceptable terms or at all. We may need to pursue dilutive equity financings, such as the issuance of shares of common stock, convertible debt or other convertible or exercisable securities, which financings could dilute the percentage ownership of our current common stockholders and could significantly lower the market value of our common stock.

ITEM 1A. RISK FACTORS

The following is a summary of the risk factors, uncertainties and assumptions that we believe are most relevant to our business. These are factors that, individually or in the aggregate, we think could cause our actual results to differ significantly from anticipated or historical results and our forward-looking statements. You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider the following to be a complete discussion of all potential risks or uncertainties. Moreover, we operate in a competitive and rapidly changing environment. New factors emerge from time to time and it is not possible to predict the impact of all of these factors on our business, financial condition or results of operations. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events, or otherwise. You are advised, however, to consult any further disclosure we make on related subjects in our reports on forms 10-Q and 8-K filed with the SEC.

RISKS RELATED TO OUR BUSINESS

We have a history of significant losses from continuing operations and expect to continue such losses for the foreseeable future.

Since our inception, our expenses have substantially exceeded our revenues, resulting in continuing losses and an accumulated deficit of $151 million at December 31, 2012. For the year ended December 31, 2012, we incurred a net loss of $26.6 million. Because we presently have no product revenues and we are committed to continuing our product research, development and commercialization programs, we will continue to experience significant operating losses unless and until we complete the development of ThermoDox® and other new products and these products have been clinically tested, approved by the U.S. Food and Drug Administration (FDA) and successfully marketed.

Drug development is an inherently uncertain process with a high risk of failure at every stage of development. Our lead drug candidate failed to meets its primary endpoint in the Phase III HEAT study.

We have a number of drug candidates in research and development ranging from the early discovery research phase through preclinical testing and clinical trials. Preclinical testing and clinical trials are long, expensive and highly

uncertain processes and failure can unexpectedly occur at any stage of clinical development. Drug development is very risky. It will take us several years to complete clinical trials. The start or end of a clinical trial is often delayed or halted due to changing regulatory requirements, manufacturing challenges, required clinical trial administrative actions, slower than anticipated patient enrollment, changing standards of care, availability or prevalence of use of a comparator drug or required prior therapy, clinical outcomes including insufficient efficacy, safety concerns, or our own financial constraints.

On January 31, 2013, we announced that our lead product ThermoDox® in combination with radiofrequency ablation failed to meet the primary endpoint of the Phase III clinical trial for primary liver cancer (the HEAT study). We have not completed our analysis of the data and do not know the extent to which, if any, the failure of ThermoDox® to meet its primary endpoint in the Phase III trial could impact our other ongoing studies of ThermoDox®. ThermoDox® is also being evaluated in a Phase II clinical trial for colorectal liver metastasis, a Phase II clinical trial for recurrent chest wall breast cancer and other preclinical studies. Even with success in preclinical testing and previously completed clinical trials, the risk of clinical failure for any drug candidate remains high prior to regulatory approval. Even if ThermoDox® has positive results in its Phase II clinical trials, there is a substantial risk that it will fail to have sufficiently positive results in Phase III clinical trials with regard to efficacy, safety or other clinical outcomes. One or more of our clinical studies could fail at any time, as evidenced by the failure of ThermoDox® to meet its primary endpoint in the HEAT study. The failure of one or more of our drug candidates or development programs could have a material adverse effect on our business, financial condition and results of operations.

If we do not obtain or maintain FDA and foreign regulatory approvals for our drug candidates on a timely basis, or at all, or if the terms of any approval impose significant restrictions or limitations on use, we will be unable to sell those products and our business, results of operations and financial condition will be negatively affected.

To obtain regulatory approvals from the FDA and foreign regulatory agencies, we must conduct clinical trials demonstrating that our products are safe and effective. We may need to amend ongoing trials or the FDA and/or foreign regulatory agencies may require us to perform additional trials beyond those we planned. This process generally takes a number of years and requires the expenditure of substantial resources. The time required for completing testing and obtaining approvals is uncertain, and the FDA and foreign regulatory agencies have substantial discretion, at any phase of development, to terminate clinical studies, require additional clinical development or other testing, delay or withhold registration and marketing approval and mandate product withdrawals, including recalls. In addition, undesirable side effects caused by our drug candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restricted label or the delay or denial of regulatory approval by regulatory authorities. Even if we receive regulatory approval of a product, the approval may limit the indicated uses for which the drug may be marketed. The failure to obtain timely regulatory approval of product candidates, any product marketing limitations or a product withdrawal would negatively impact our business, results of operations and financial condition.

We do not expect to generate significant revenue for the foreseeable future.

We have devoted our resources to developing a new generation of products and will not be able to market these products until we have completed clinical trials and obtain all necessary governmental approvals. Our lead product candidate, ThermoDox®, is still in various stages of development and trials and cannot be marketed until we have completed clinical testing and obtained necessary governmental approval. Following our announcement on January 31, 2013 that the HEAT study failed to meet its primary endpoint of progression free survival, we will continue to follow the patients enrolled in the Heat study to the secondary endpoint, overall survival. ThermoDox® is currently also being evaluated in Phase II clinical trials and other preclinical studies. We do not expect to realize any revenues from product sales in the next several years, if at all. Accordingly, our revenue sources are, and will remain, extremely limited until our product candidates are clinically tested, approved by the FDA or foreign regulatory agencies and successfully marketed. We cannot guarantee that any of our product candidates will be successfully tested, approved by the FDA or foreign regulatory agency or marketed, successfully or otherwise, at any time in the foreseeable future or at all.

We will need to raise substantial additional capital to fund our planned future operations, and we may be unable to secure such capital without dilutive financing transactions. If we are not able to raise additional capital, we may not be able to complete the development, testing and commercialization of our product candidates.

As of December 31, 2012, we had approximately $23 million in cash, cash equivalents and short-term investments. We have substantial future capital requirements to continue our research and development activities and advance our drug candidates through various development stages. For example, ThermoDox® is being evaluated in a Phase II clinical trial for colorectal liver metastasis, a Phase II clinical trial for recurrent chest wall breast cancer and other preclinical studies. We will conduct additional analyses of the data from the HEAT study to assess the future strategic value of ThermoDox® and are performing sub-group analysis of the Chinese cohort of patients in the HEAT study and other activities for further development of ThermoDox® for mainland China, Hong Kong and Macau. To complete the development and commercialization of our product candidates, we will need to raise substantial amounts of additional capital to fund our operations. We do not have any committed sources of financing and cannot assure you that alternate funding will be available in a timely manner, on acceptable terms or at all. We may need to pursue dilutive equity financings, such as the issuance of shares of common stock, convertible debt or other convertible or exercisable securities. Such dilutive equity financings could dilute the percentage ownership of our current common stockholders and could significantly lower the market value of our common stock. In addition, a financing could result in the issuance of new securities that may have rights, preferences or privileges senior to those of our existing stockholders.

If we cannot raise additional capital, we may be required to delay, reduce or eliminate certain aspects of our operations or attempt to obtain funds through unfavorable arrangements with partners or others that may force us to relinquish rights to certain of our technologies, products or potential markets or that could impose onerous financial or other terms. Furthermore, if we cannot fund our ongoing development and other operating requirements, particularly those associated with our obligations to conduct clinical trials under our licensing agreements, we will be in breach of these licensing agreements and could therefore lose our license rights, which could have material adverse effects on our business.

We have no internal sales or marketing capability. If we are unable to create sales, marketing and distribution capabilities or enter into alliances with others possessing such capabilities to perform these functions, we will not be able to commercialize our products successfully.

We currently have no sales, marketing or distribution capabilities. We intend to market our products, if and when such products are approved for commercialization by the FDA and foreign regulatory agencies, either directly or through other strategic alliances and distribution arrangements with third parties. If we decide to market our products directly, we will need to commit significant financial and managerial resources to develop a marketing and sales force with technical expertise and with supporting distribution, administration and compliance capabilities. If we rely on third parties with such capabilities to market our products, we will need to establish and maintain partnership arrangements, and there can be no assurance that we will be able to enter into third-party marketing or distribution arrangements on acceptable terms or at all. To the extent that we do enter into such arrangements, we will be dependent on our marketing and distribution partners. In entering into third-party marketing or distribution arrangements, we expect to incur significant additional expense and there can be no assurance that such third parties will establish adequate sales and distribution capabilities or be successful in gaining market acceptance for our products and services.

Our business depends on license agreements with third parties to permit us to use patented technologies. The loss of any of our rights under these agreements could impair our ability to develop and market our products.

Our success will depend, in a substantial part, on our ability to maintain our rights under license agreements granting us rights to use patented technologies. We have entered into license agreements with Duke University, under which we have exclusive rights to commercialize medical treatment products and procedures based on Duke's thermo-sensitive liposome technology. The Duke University license agreement contains a license fee, royalty and/or research support provisions, testing and regulatory milestones, and other performance requirements that we must meet by certain deadlines. Additionally, we have a joint research agreement with Philips Healthcare, a division of Royal Philips Electronics, to evaluate the combination of Philips' high intensity focused ultrasound (HIFU) with ThermoDox® to determine the potential of this combination to treat a broad range of cancers. If we breach any provisions of the license and research agreements, we may our ability to use the subject technology, as well as compensation for our efforts in developing or exploiting the technology. Any such loss of rights and access to technology could have a material adverse effect on our business.

Further, we cannot guarantee that any patent or other technology rights licensed to us by others will not be challenged or circumvented successfully by third parties, or that the rights granted will provide adequate protection. We may be required to alter any of our potential products or processes, or enter into a license and pay licensing fees to a third party or cease certain activities. There can be no assurance that we can obtain a license to any technology that we determine we need on reasonable terms, if at all, or that we could develop or otherwise obtain alternate technology. If a license is not available on commercially reasonable terms or at all, our business, results of operations, and financial condition could be significantly harmed and we may be prevented from developing and commercializing the product. Litigation, which could result in substantial costs, may also be necessary to enforce any patents issued to or licensed by us or to determine the scope and validity of others' claimed proprietary rights.

We rely on trade secret protection and other unpatented proprietary rights for important proprietary technologies, and any loss of such rights could harm our business, results of operations and financial condition.

We rely on trade secrets and confidential information that we seek to protect, in part, by confidentiality agreements with our corporate partners, collaborators, employees and consultants. We cannot assure you that these agreements are adequate to protect our trade secrets and confidential information or will not be breached or, if breached, we will have adequate remedies. Furthermore, others may independently develop substantially equivalent confidential and proprietary information or otherwise gain access to our trade secrets or disclose such technology. Any loss of trade secret protection or other unpatented proprietary rights could harm our business, results of operations and financial condition.

Our products may infringe patent rights of others, which may require costly litigation and, if we are not successful, could cause us to pay substantial damages or limit our ability to commercialize our products.

Our commercial success depends on our ability to operate without infringing the patents and other proprietary rights of third parties. There may be third party patents that relate to our products and technology. We may unintentionally infringe upon valid patent rights of third parties. Although we currently are not involved in any material litigation involving patents, a third party patent holder may assert a claim of patent infringement against us in the future. Alternatively, we may initiate litigation against the third party patent holder to request that a court declare that we are not infringing the third party's patent and/or that the third party's patent is invalid or unenforceable. If a claim of infringement is asserted against us and is successful, and therefore we are found to infringe, we could be required to pay damages for infringement, including treble damages if it is determined that we knew or became aware of such a patent and we failed to exercise due care in determining whether or not we infringed the patent. If we have supplied infringing products to third parties or have licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for damages they may be required to pay to the patent holder and for any losses they may sustain. We can also be prevented from selling or commercializing any of our products that use the infringing technology in the future, unless we obtain a license from such third party. A license may not be available from such third party on commercially reasonable terms, or may not be available at all. Any modification to include a non-infringing technology may not be possible or if possible may be difficult or time-consuming to develop, and require revalidation, which could delay our ability to commercialize our products. Any infringement action asserted against us, even if we are ultimately successful in defending against such action, would likely delay the regulatory approval process of our products, harm our competitive position, be expensive and require the time and attention of our key management and technical personnel.

We rely on third parties to conduct all of our clinical trials. If these third parties are unable to carry out their contractual duties in a manner that is consistent with our expectations, comply with budgets and other financial obligations or meet expected deadlines, we may not receive certain development milestone payments or be able to obtain regulatory approval for or commercialize our product candidates in a timely or cost-effective manner.

We rely, and expect to continue to rely, on third-party clinical research organizations to conduct our clinical trials. Because we do not conduct our own clinical trials, we must rely on the efforts of others and cannot always control or predict accurately the timing of such trials, the costs associated with such trials or the procedures that are followed for such trials. We do not expect to significantly increase our personnel in the foreseeable future and may continue to rely on third parties to conduct all of our future clinical trials. If these third parties are unable to carry out their contractual duties or obligations in a manner that is consistent with our expectations or meet expected deadlines, if they do not carry out the trials in accordance with budgeted amounts, if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or for other reasons, or if they fail to maintain compliance with applicable government regulations and standards, our clinical trials may be extended, delayed or terminated or may become significantly expensive, we may not receive development milestone payments when expected or at all, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates.

Our business is subject to numerous and evolving state, federal and foreign regulations and we may not be able to secure the government approvals needed to develop and market our products.

Our research and development activities, pre-clinical tests and clinical trials, and ultimately the manufacturing, marketing and labeling of our products, are all subject to extensive regulation by the FDA and foreign regulatory agencies. Pre-clinical testing and clinical trial requirements and the regulatory approval process typically take years and require the expenditure of substantial resources. Additional government regulation may be established that could prevent or delay regulatory approval of our product candidates. Delays or rejections in obtaining regulatory approvals

would adversely affect our ability to commercialize any product candidates and our ability to generate product revenues or royalties.

The FDA and foreign regulatory agencies require that the safety and efficacy of product candidates be supported through adequate and well-controlled clinical trials. If the results of pivotal clinical trials do not establish the safety and efficacy of our product candidates to the satisfaction of the FDA and other foreign regulatory agencies, we will not receive the approvals necessary to market such product candidates. Even if regulatory approval of a product candidate is granted, the approval may include significant limitations on the indicated uses for which the product may be marketed.

We are subject to the periodic inspection of our clinical trials, facilities, procedures and operations and/or the testing of our products by the FDA to determine whether our systems and processes, or those of our vendors and suppliers, are in compliance with FDA regulations. Following such inspections, the FDA may issue notices on Form 483 and warning letters that could cause us to modify certain activities identified during the inspection. A Form 483 notice is generally issued at the conclusion of an FDA inspection and lists conditions the FDA inspectors believe may violate FDA regulations. FDA guidelines specify that a warning letter is issued only for violations of "regulatory significance" for which the failure to adequately and promptly achieve correction may be expected to result in an enforcement action.

Failure to comply with the FDA and other governmental regulations can result in fines, unanticipated compliance expenditures, recall or seizure of products, total or partial suspension of production and/or distribution, suspension of the FDA's review of product applications, enforcement actions, injunctions and criminal prosecution. Under certain circumstances, the FDA also has the authority to revoke previously granted product approvals. Although we have internal compliance programs, if these programs do not meet regulatory agency standards or if our compliance is deemed deficient in any significant way, it could have a material adverse effect on the Company.

We are also subject to recordkeeping and reporting regulations. These regulations require, among other things, the reporting to the FDA of adverse events alleged to have been associated with the use of a product or in connection with certain product failures.

Labeling and promotional activities also are regulated by the FDA. We must also comply with record keeping requirements as well as requirements to report certain adverse events involving our products. The FDA can impose other post-marketing controls on us as well as our products including, but not limited to, restrictions on sale and use, through the approval process, regulations and otherwise.

Many states in which we do or may do business, or in which our products may be sold, if at all, impose licensing, labeling or certification requirements that are in addition to those imposed by the FDA. There can be no assurance that one or more states will not impose regulations or requirements that have a material adverse effect on our ability to sell our products.

In many of the foreign countries in which we may do business or in which our products may be sold, we will be subject to regulation by national governments and supranational agencies as well as by local agencies affecting, among other things, product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. There can be no assurance that one or more countries or agencies will not impose regulations or requirements that could have a material adverse effect on our ability to sell our products.

Legislative and regulatory changes affecting the healthcare industry could adversely affect our business.

Political, economic and regulatory influences are subjecting the healthcare industry to potential fundamental changes that could substantially affect our results of operations. There have been a number of government and private sector initiatives during the last few years to limit the growth of healthcare costs, including price regulation, competitive pricing, coverage and payment policies, comparative effectiveness of therapies, technology assessments and managed-care arrangements. It is uncertain whether or when any legislative proposals will be adopted or what actions federal, state, or private payors for health care treatment and services may take in response to any healthcare reform proposals or legislation. We cannot predict the effect healthcare reforms may have on our business and we can offer no assurances that any of these reforms will not have a material adverse effect on our business. These actual and potential changes are causing the marketplace to put increased emphasis on the delivery of more cost-effective treatments. In addition, uncertainty remains regarding proposed significant reforms to the U.S. health care system.

The success of our products may be harmed if the government, private health insurers and other third-party payers do not provide sufficient coverage or reimbursement.

Our ability to commercialize our new cancer treatment systems successfully will depend in part on the extent to which reimbursement for the costs of such products and related treatments will be available from government health administration authorities, private health insurers and other third-party payors. The reimbursement status of newly approved medical products is subject to significant uncertainty. We cannot guarantee that adequate third-party insurance coverage will be available for us to establish and maintain price levels sufficient for us to realize an appropriate return on our investment in developing new therapies. Government, private health insurers and other third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new therapeutic products approved for marketing by the FDA. Accordingly, even if coverage and reimbursement are provided by government, private health insurers and third-party payors for uses of our products, market acceptance of these products would be adversely affected if the reimbursement available proves to be unprofitable for health care providers.

Our products may not achieve sufficient acceptance by the medical community to sustain our business.

The commercial success of our products will depend upon their acceptance by the medical community and third-party payers as clinically useful, cost effective and safe. Any or our drug candidates may prove not to be effective in practice. If testing and clinical practice do not confirm the safety and efficacy of our product candidates or even if further testing and clinical practice produce positive results but the medical community does not view these new forms of treatment as effective and desirable, our efforts to market our new products may fail, which would have an adverse effect on our business, financial condition and results of operations.

The commercial potential of a drug candidate in development is difficult to predict. If the market size for a new drug is significantly smaller than we anticipate, it could significantly and negatively impact our revenue, results of operations and financial condition.

It is very difficult to predict the commercial potential of product candidates due to important factors such as safety and efficacy compared to other available treatments, including potential generic drug alternatives with similar efficacy profiles, changing standards of care, third party payor reimbursement standards, patient and physician preferences, the availability of competitive alternatives that may emerge either during the long drug development process or after commercial introduction, and the availability of generic versions of our successful product candidates following approval by government health authorities based on the expiration of regulatory exclusivity or our inability to prevent generic versions from coming to market by asserting our patents. If due to one or more of these risks the market potential for a drug candidate is lower than we anticipated, it could significantly and negatively impact the revenue potential for such drug candidate and would adversely affect our business, financial condition and results of operations.

Technologies for the treatment of cancer are subject to rapid change, and the development of treatment strategies that are more effective than our technologies could render our technologies obsolete.

Various methods for treating cancer currently are, and in the future are expected to be, the subject of extensive research and development. Many possible treatments that are being researched, if successfully developed, may not require, or may supplant, the use of our technologies. The successful development and acceptance of any one or more of these alternative forms of treatment could render our technology obsolete as a cancer treatment method.

We may not be able to hire or retain key officers or employees that we need to implement our business strategy and develop our products and business.

Our success depends significantly on the continued contributions of our executive officers, scientific and technical personnel and consultants, and on our ability to attract additional personnel as we seek to implement our business strategy and develop our products and businesses. During our operating history, we have assigned many essential responsibilities to a relatively small number of individuals. However, as our business and the demands on our key employees expand, we have been, and will continue to be, required to recruit additional qualified employees. The competition for such qualified personnel is intense, and the loss of services of certain key personnel or our inability to attract additional personnel to fill critical positions could adversely affect our business. Further, we do not carry “key man” insurance on any of our personnel. Therefore, loss of the services of key personnel would not be ameliorated by the receipt of the proceeds from such insurance.

Our success will depend in part on our ability to grow and diversify, which in turn will require that we manage and control our growth effectively.

Our business strategy contemplates growth and diversification. Our ability to manage growth effectively will require that we continue to expend funds to improve our operational, financial and management controls, reporting systems and procedures. In addition, we must effectively expand, train and manage our employees. We will be unable to manage our business effectively if we are unable to alleviate the strain on resources caused by growth in a timely and successful manner. There can be no assurance that we will be able to manage our growth and a failure to do so could have a material adverse effect on our business.

If we engage in acquisitions, reorganizations or business combinations, we will incur a variety of risks that could adversely affect our business operations or our stockholders.

We may consider strategic alternatives intended to further the development of our business, which may include acquiring businesses, technologies or products or entering into a business combination with another company. If we do pursue such a strategy, we could, among other things:

- issue equity securities that would dilute our current stockholders' percentage ownership;
- incur substantial debt that may place strains on our operations;
- spend substantial operational, financial and management resources in integrating new businesses, personnel intellectual property, technologies and products;
- assume substantial actual or contingent liabilities;
- reprioritize our development programs and even cease development and commercialization of our drug candidates;
- suffer the loss of key personnel, or
- merge with, or otherwise enter into a business combination with, another company in which our stockholders would receive cash or shares of the other company or a combination of both on terms that certain of our stockholders may not deem desirable.

Although we intend to evaluate and consider different strategic alternatives, we have no agreements or understandings with respect to any acquisition, reorganization or business combination at this time.

We face intense competition and the failure to compete effectively could adversely affect our ability to develop and market our products.

There are many companies and other institutions engaged in research and development of various technologies for cancer treatment products that seek treatment outcomes similar to those that we are pursuing. We believe that the level of interest by others in investigating the potential of possible competitive treatments and alternative technologies will continue and may increase. Potential competitors engaged in all areas of cancer treatment research in the United States and other countries include, among others, major pharmaceutical, specialized technology companies, and universities and other research institutions. Most of our current and potential competitors have substantially greater financial, technical, human and other resources, and may also have far greater experience than do we, both in pre-clinical testing and human clinical trials of new products and in obtaining FDA and other regulatory approvals. One or more of these companies or institutions could succeed in developing products or other technologies that are more effective than the products and technologies that we have been or are developing, or which would render our technology and products obsolete and non-competitive. Furthermore, if we are permitted to commence commercial sales of any of our products, we will also be competing, with respect to manufacturing efficiency and marketing, with companies having substantially greater resources and experience in these areas.

We may be subject to significant product liability claims and litigation.

Our business exposes us to potential product liability risks inherent in the testing, manufacturing and marketing of human therapeutic products. We presently have product liability insurance limited to $10 million per incident and $10 million annually. If we were to be subject to a claim in excess of this coverage or to a claim not covered by our

insurance and the claim succeeded, we would be required to pay the claim with our own limited resources, which could have a severe adverse effect on our business. Whether or not we are ultimately successful in any product liability litigation, such litigation would harm the business by diverting the attention and resources of our management, consuming substantial amounts of our financial resources and by damaging our reputation. Additionally, we may not be able to maintain our product liability insurance at an acceptable cost, if at all.

RISKS RELATED TO OUR SECURITIES

We do not generate operating income and will require additional financing in the future. If additional capital is not available, we may have to curtail or cease operations.

Our business currently does not generate the cash necessary to finance our operations. Since our inception, our expenses have substantially exceeded our revenues, resulting in continuing losses and an accumulated deficit of $151 million at December 31, 2012. For the year ended December 31, 2012, we incurred a net loss of $26.6 million. We presently have no product revenue. We may need to raise additional capital to fund research and development and to develop and commercialize our products. Our future capital needs depend on many factors, including the scope, duration and expenditures associated with our clinical trials, the outcome of potential licensing transactions, if any, competing technological developments and the regulatory approval process for our products.

We may seek to raise necessary funds through public or private equity offerings, debt financings or additional strategic alliances and licensing arrangements. We may not be able to obtain additional financing on terms favorable to us, if at all. The failure of the HEAT study to demonstrate clinical effectiveness, in addition to general market conditions, may make it very difficult for us to seek financing from the capital markets. We may be required to relinquish rights to our technologies or products, or grant licenses on terms that are not favorable to us, in order to raise additional funds through alliance, joint venture or licensing arrangements. If adequate funds are not available, we may have to delay, reduce or eliminate one or more of our research or development programs and reduce overall overhead expense. Such events could cause our independent registered public accounting firm to indicate that there may be substantial doubt about our ability to continue as a going concern in future periods.

The market price of our common stock has been, and may continue to be volatile and fluctuate significantly, which could result in substantial losses for investors and subject us to securities class action litigation.

The trading price for our common stock has been, and we expect it to continue to be, volatile. Our January 31, 2013 announcement that the HEAT study failed to meet its primary endpoint has resulted in significant volatility and a steep decline in the price of our common stock, a level of decline that could result in securities litigation. Plaintiffs' securities litigation firms have publicly announced that they are investigating potential securities fraud claims that they may wish to make against us. The price at which our common stock trades depends upon a number of factors, including our historical and anticipated operating results, our financial situation, announcements of technological innovations or new products by us or our competitors, our ability or inability to raise the additional capital we may need and the terms on which we raise it, and general market and economic conditions. Some of these factors are beyond our control. Broad market fluctuations may lower the market price of our common stock and affect the volume of trading in our stock, regardless of our financial condition, results of operations, business or prospect. The closing price of our common stock had a high price of $4.23 and a low price of $1.69 in the 52-week period ended December 31, 2011, a high price of $8.83 and a low price of $1.64 in the 52-week period ended December 31 2012 and a high price of $9.35 and a low price of $0.97 from January 1, 2013 through March 15, 2013. Among the factors that may cause the market price of our common stock to fluctuate are the risks described in this "Risk Factors" section and other factors, including:

fluctuations in our quarterly operating results or the operating results of our competitors;

variance in our financial performance from the expectations of investors;

changes in the estimation of the future size and growth rate of our markets;

changes in accounting principles or changes in interpretations of existing principles, which could affect our financial results;

failure of our products to achieve or maintain market acceptance or commercial success;

conditions and trends in the markets we serve;

changes in general economic, industry and market conditions;

success of competitive products and services;

changes in market valuations or earnings of our competitors;

changes in our pricing policies or the pricing policies of our competitors;

announcements of significant new products, contracts, acquisitions or strategic alliances by us or our competitors;

changes in legislation or regulatory policies, practices or actions;

the commencement or outcome of litigation involving our company, our general industry or both;

recruitment or departure of key personnel;

changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;

actual or expected sales of our common stock by our stockholders; and

the trading volume of our common stock.

In addition, the stock markets, in general, the NASDAQ Capital Market and the market for pharmaceutical companies in particular, may experience a loss of investor confidence. Such loss of investor confidence may result in extreme price and volume fluctuations in our common stock that are unrelated or disproportionate to the operating performance of our business, financial condition or results of operations. These broad market and industry factors may materially harm the market price of our common stock and expose us to securities class action litigation. Such litigation, even if unsuccessful, could be costly to defend and divert management's attention and resources, which could further materially harm our financial condition and results of operations.

Future sales of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. As of March 15, 2013, we had 50,832,933 shares of common stock outstanding, all of which shares, other than shares held by our directors and certain officers, were eligible for sale in the public market, subject in some cases to compliance with the requirements of Rule 144, including the volume limitations and manner of sale requirements. In addition, all of the shares of common stock issuable upon exercise of warrants will be freely tradable without restriction or further registration upon issuance.

Our stockholders may experience significant dilution as a result of future equity offerings or issuances and exercise of outstanding options and warrants.

In order to raise additional capital or pursue strategic transactions, we may in the future offer, issue or sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock. Our stockholders may experience significant dilution as a result of future equity offerings or issuance. Investors purchasing shares or other securities in the future could have rights superior to existing stockholders. As of March 15, 2013, we have a significant number of securities convertible into, or allowing the purchase of, our common stock, including 4,054,326 remaining shares of common stock issuable upon conversion of our Series A 0% convertible preferred stock issued in the registered direct offering closed on February 26, 2013 and 13,818,772 shares of common stock issuable upon exercise of warrants outstanding, 3,234,948 options to purchase shares of our common stock and restricted stock awards outstanding, and 2,153,974 shares of common stock reserved for future issuance under our stock incentive plans. Under the Controlled Equity Offering SM Sales Agreement entered into with Cantor Fitzgerald

& Co. on February 1, 2013, we may offer and sell, from time to time through “at-the-market” offerings, up to an aggregate of $25 million of shares of our common stock. In connection with the Series A 0% convertible preferred stock offering, the Company agreed to not sell any ATM Shares for a period of one year from February 26, 2013.

We may be unable to maintain compliance with NASDAQ Marketplace Rules which could cause our common stock to be delisted from The NASDAQ Capital Market. This could result in the lack of a market for our common stock, cause a decrease in the value of an investment in us, and adversely affect our business, financial condition and results of operations.

On April 6, 2011, we received notice from The NASDAQ Listing Qualifications Department that we were not in compliance with the minimum Market Value of Listed Securities (MVLS) requirement for continued listing on The NASDAQ Capital Market, as set forth in NASDAQ Listing Rule 5550(b)(2) (the Rule), which requires a listed company to maintain a minimum MVLS of $35 million. On May 10, 2011, we received a letter from NASDAQ stating that our MVLS had been $35 million or greater for the previous ten consecutive business days (from April 26, 2011 to May 9, 2011) and that we had regained compliance with the Rule.

We cannot guarantee that our MVLS will remain at or above $35 million and if our MVLS again drops below $35 million, the stock could become subject to delisting again. If our common stock is delisted, trading of the stock will most likely take place on an over-the-counter market established for unlisted securities, such as the Pink Sheets or the OTC Bulletin Board. An investor is likely to find it less convenient to sell, or to obtain accurate quotations in seeking to buy, our common stock on an over-the-counter market, and many investors may not buy or sell our common stock due to difficulty in accessing over-the-counter markets, or due to policies preventing them from trading in securities not listed on a national exchange or other reasons. In addition, as a delisted security, our common stock would be subject to SEC rules regarding “penny stock,” which impose additional disclosure requirements on broker-dealers. The regulations relating to penny stocks, coupled with the typically higher cost per trade to investors in penny stocks due to factors such as broker commissions generally representing a higher percentage of the price of a penny stock than of a higher priced stock, would further limit the ability and willingness of investors to trade in our common stock. For these reasons and others, delisting would adversely affect the liquidity, trading volume and price of our common stock, causing the value of an investment in us to decrease and having an adverse effect on our business, financial condition and results of operations, including our ability to attract and retain qualified executives and employees and to raise capital.

The adverse capital and credit market conditions could affect our liquidity.

Adverse capital and credit market conditions could affect our ability to meet liquidity needs, as well as our access to capital and cost of capital. The capital and credit markets have experienced extreme volatility and disruption in recent years. Our results of operations, financial condition, cash flows and capital position could be materially adversely affected by continued disruptions in the capital and credit markets.

Our ability to use net operating losses to offset future taxable income are subject to certain limitations.

We currently have significant net operating losses (NOLs) that may be used to offset future taxable income. In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the Code), a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income. During 2012 and 2011, the Company performed analyses to determine if there were changes in ownership, as defined by Section 382 of the Internal Revenue Code that would limit its ability to utilize certain net operating loss and tax credit carryforwards. The Company determined that it experienced an ownership change, as defined by Section 382, in connection with its registered direct and private placement offerings on July 25, 2011. As a result, the utilization of the Company’s federal tax net operating loss carryforwards generated prior to the ownership change is limited. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code, which would significantly limit our ability to utilize NOLs to offset future taxable income.

We have never paid dividends on our common stock in the past and do not anticipate paying cash dividends on our common stock in the foreseeable future.

We have never declared or paid cash dividends on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for the foreseeable future for holders of our common stock.

Anti-takeover provisions in our charter documents and Delaware law could prevent or delay a change in control.

Our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition that a stockholder may consider favorable by authorizing the issuance of “blank check” preferred stock. This preferred stock may be issued by our board of directors on such terms as it determines, without further stockholder approval. Therefore, our board of directors may issue such preferred stock on terms unfavorable to a potential bidder in the event that our board of directors opposes a merger or acquisition. In addition, our classified board of directors may discourage such transactions by increasing the amount of time necessary to obtain majority representation on our board of directors. Certain other provisions of our bylaws and of Delaware law may also discourage, delay or prevent a third party from acquiring or merging with us, even if such action were beneficial to some, or even a majority, of our stockholders.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

In 2011, the Company executed a lease with Brandywine Operating Partnership, L.P. (Brandywine), a Delaware limited partnership for a 10,870 square foot premises located in Lawrenceville, New Jersey. In October 2011, the Company relocated its offices to Lawrenceville, New Jersey from Columbia, Maryland. The lease has a term of 66 months and provides for 6 months rent free, with the first monthly rent payment of approximately $23,000 due in April 2012. Also, as required by the lease, the Company provided Brandywine with an irrevocable and unconditional standby letter of credit for $250,000, which the Company secured with an escrow deposit at its banking institution of this same amount. The standby letter of credit will be reduced by $50,000 on each of the 19th, 31st and 43rd months from the initial term, with the remaining $100,000 amount remaining until the Lease Term has expired.

We believe our existing facility is suitable and adequate to conduct our business.

ITEM 3. LEGAL PROCEEDINGS

We are not currently a party to any material legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Price for Our Common Stock

Our Common Stock trades on the NASDAQ Capital Market under the symbol "CLSN". The following table sets forth the high and low closing sale prices for the periods indicated. The quotations set forth below do not include retail markups, markdowns or commissions.

	High	Low
YEAR ENDED DECEMBER 31, 2012		
First Quarter (January 1 – March 31, 2012)	$ 2.22	$ 1.64
Second Quarter (April 1 – June 30, 2012)	$ 3.13	$ 1.76
Third Quarter (July 1 – September 30, 2012)	$ 5.90	$ 2.85
Fourth Quarter (October 1 – December 31, 2012)	$ 8.83	$ 4.30
YEAR ENDED DECEMBER 31, 2011		
First Quarter (January 1 – March 31, 2011)	$ 2.97	$ 2.18
Second Quarter (April 1 – June 30, 2011)	$ 3.37	$ 2.16
Third Quarter (July 1 – September 30, 2011)	$ 4.23	$ 2.50
Fourth Quarter (October 1 – December 31, 2011)	$ 3.67	$ 1.69
YEAR ENDED DECEMBER 31, 2010		
First Quarter (January 1 – March 31, 2010)	$ 4.69	$ 2.76
Second Quarter (April 1 – June 30, 2010)	$ 5.44	$ 3.13
Third Quarter (July 1 – September 30, 2010)	$ 3.42	$ 2.97
Fourth Quarter (October 1 – December 31, 2010)	$ 3.63	$ 2.01

On March 15, 2013, the last reported sale price for our Common Stock on the NASDAQ Capital Market was $1.06. As of March 15, 2013, there were approximately 12,500 stockholders of record of our Common Stock.

Performance Graph

The following graph compares the percentage change in the cumulative return to the stockholders of our common stock during the five year period ended December 31, 2012 with the cumulative return the NASDAQ Composite Index and the NASDAQ Biotechnology Index for the same periods.

The graph assumes that $100 was invested on December 31, 2007 in our common stock or an index, and that all dividends were reinvested. We have not declared nor paid any dividends on our common stock. Stockholder returns over the indicated period should not be considered indicative of future stockholder returns.

Dividend Policy
We have never declared or paid and have no present intention to pay cash dividends on our Common Stock in the foreseeable future. We intend to retain any earnings for use in our business operations.

Securities Authorized For Issuance Under Equity Compensation Plans
See “Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters—Equity Compensation Plan Information.”

Unregistered Shares Of Equity Securities
All unregistered shares of equity securities have been previously reported by the Company in its Quarterly Report on Form 10-Q or a Current Report on Form 8-K.

Issuer Purchases Of Equity Securities
None.

ITEM 6. SELECTED FINANCIAL DATA

The selected financial data set forth below is not necessarily indicative of results of future operations and should be read together with Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and the financial statements and related notes thereto included in Part II, Item 8 of this Form 10-K to fully understand factors that may affect the comparability of the information presented below.

	Year Ended December 31,				
Statement of operations data:	2012	2011	2010	2009	2008
(in thousands, except per share data)					
Licensing revenue	$-	$2,000	$-	$-	$2,500
Research and development expense	15,770	19,864	14,714	13,681	12,006
General and administrative expense	6,373	5,155	4,923	3,327	2,043
Total operating expense	22,143	25,019	19,637	17,008	14,049
Operating loss	(22,143)	(23,019)	(19,637)	(17,008)	(11,549)
Other (loss) income	(4,426)	(204)	819	1,006	(237)
Net loss	$(26,569)	$(23,223)	$(18,818)	$(16,002)	$(11,786)
Net loss per share (basic and diluted)	$(0.76)	$(1.11)	$(1.52)	$(1.43)	$(1.16)
Weighted average shares used in computing net loss per share	26,568	20,918	12,375	10,655	10,149

	As of December 31,				
Balance sheet data:	2012	2011	2010	2009	2008
(in thousands)					
Cash and cash equivalents	$ 14,991	$ 20,145	$ 1,139	$ 6,923	$ 3,456
Investment securities, available for sale (including interest receivable on investments)	8,104	10,401	396	5,695	4,061
Working capital (deficit)	18,644	25,356	(4,769)	10,369	18,889
Total assets	25,359	32,649	2,525	14,805	23,688
Common stock warrant liability	4,284	166	248	822	-
Non current liabilities	8,392	303	305	1,018	28
Total liabilities	13,397	6,456	7,101	4,769	3,962
Total stockholders’ equity (deficit)	11,962	26,194	(4,576)	10,036	19,726

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussions should be read in conjunction with our financial statements and related notes thereto included in this Annual Report on Form 10-K. The following discussion contains forward-looking statements made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. These statements are based on our beliefs and expectations about future outcomes and are subject to risks and uncertainties that could cause actual results to differ materially from anticipated results. Factors that could cause or contribute to such differences include those described under Part I, Item 1A – Risk Factors appearing in this Annual Report on Form 10-K and factors described in other cautionary statements, cautionary language and risk factors set forth in other documents that we file with the Securities and Exchange Commission. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise.

Overview

Celsion is an oncology drug development company focused on the development of treatments for those suffering with difficult to treat forms of cancer. We are working to develop and commercialize more efficient and effective targeted chemotherapeutic oncology drugs based on our proprietary heat-activated liposomal technology. The promise of this drug technology is to maximize efficacy while minimizing side effects common to cancer treatments.

Significant Events

ThermoDox®

Our lead product ThermoDox® is being evaluated in a Phase III clinical trial for primary liver cancer (the HEAT study), a Phase II clinical trial for colorectal liver metastasis (CRLM) and a Phase II clinical trial for recurrent chest wall breast cancer. ThermoDox® is a liposomal encapsulation of doxorubicin, an approved and frequently used oncology drug for the treatment of a wide range of cancers. Localized heat at mild hyperthermia temperatures (greater than 39.5 degrees Celsius) releases the encapsulated doxorubicin from the liposome enabling high concentrations of doxorubicin to be deposited preferentially in and around the targeted tumor.

The HEAT Study for Primary Liver Cancer

The HEAT study for ThermoDox®, in combination with radiofrequency ablation (RFA), is being conducted under a Special Protocol Assessment agreed to with the U.S. Food and Drug Administration (FDA). The Special Protocol Assessment agreed to with the FDA specified Progression Free Survival (PFS) as the HEAT study's primary endpoint. We scheduled a meeting with the HEAT study independent Data Monitoring Committee (DMC) on January 30, 2013 in order to conduct an analysis of the HEAT study's PFS endpoint. Following review by the DMC, on January 31, 2013, we announced that ThermoDox® in combination with RFA did not meet the primary endpoint of the HEAT study in patients with hepatocellular carcinoma (HCC), also known as primary liver cancer. Specifically, we determined, after conferring with the DMC, that the HEAT study did not meet the goal of demonstrating persuasive evidence of clinical effectiveness that could form the basis for regulatory approval in the population chosen for the HEAT study. The HEAT study was designed to show a 33 percent improvement in PFS with 80 percent power and a p-value = 0.05. In the trial, ThermoDox® was well-tolerated with no unexpected serious adverse events. We will continue following the patients enrolled in the HEAT study to the secondary endpoint, overall survival.

We will also conduct additional analyses of the data from the HEAT study to assess the future strategic value of ThermoDox®. We plan to continue with related partnerships, such as our arrangement with Zhejiang Hisun

Pharmaceutical Co. Ltd. (Hisun) described below, to the extent feasible. In addition, we will assess our product pipeline and research and development priorities. As we evaluate strategic alternatives, we will need to consider a number of factors, including investment in, or acquisition of, complementary businesses, technologies or products, possible capital raising transactions, partnering opportunities and working capital requirements. We expect that the strength of our balance sheet will afford us the opportunity to evaluate our future development plans. However, as demonstrated by the HEAT study results announced on January 31, 2013, drug research and development is an inherently uncertain process and there is a high risk of failure at every stage prior to approval. The timing and the outcome of clinical results is extremely difficult to predict. Clinical development successes and failures can have a disproportionate positive or negative impact on our scientific and medical prospects, financial prospects, financial condition and market value.

Prior to the HEAT study results announced on January 31, 2013, and consistent with our global regulatory strategy, we announced on April 23, 2012, that randomization of at least 200 patients in the People's Republic of China (PRC), a requirement for registrational filing in the PRC, had been completed. The HEAT study had already enrolled a sufficient number to support registrational filings in South Korea and Taiwan, two important markets for ThermoDox®. The future of these activities will be part of our strategic planning as we analyze the data announced on January 31, 2013 and will affect our partnership with Hisun described below.

On May 6, 2012, we entered into a long term commercial supply agreement with Hisun for the production of ThermoDox® in the mainland China, Hong Kong and Macau (the China territory). In accordance with the terms of the agreement, Hisun will be responsible for providing all of the technical and regulatory support services, including the costs of all technical transfer, registrational and bioequivalence studies, technical transfer costs, Celsion consultative support costs and the purchase of any necessary equipment and additional facility costs necessary to support capacity requirements for the manufacture of ThermoDox®. We will repay Hisun for the aggregate amount of these development costs and fees commencing on the successful completion of three registrational batches of ThermoDox®. The batches are expected to be successfully produced in mid-2013, and repayment of the development costs will occur at any time on or prior to the fourth year anniversary of the signing of the agreement, which we expect in total to be approximately $2.0 million. Hisun is also obligated to certain performance requirements under the agreement. The agreement is initially limited to a percentage of the production requirements of ThermoDox® in the China territory with Hisun retaining an option for additional global supply after local regulatory approval in the China territory. In addition, Hisun will collaborate with us in relation to the regulatory approval activities for ThermoDox® with the China State Food and Drug Administration (SFDA).

On January 18, 2013, we broadened our relationship with Hisun by entering into a technology development contract with Hisun, pursuant to which Hisun paid us a non-refundable research and development fee of $5.0 million to support our development of ThermoDox® and we will provide research data and other technical support in relation to a regulatory filing by Hisun with the SFDA for approval of ThermoDox® for manufacturing and sale in the China territory.

On January 18, 2013, we also entered into an exclusive option agreement with Hisun, terminable at any time by Hisun, under which we granted Hisun an option to enter into an exclusive license agreement with us for the manufacturing and commercialization of ThermoDox® with respect to all indications in the China territory under the terms and conditions set forth in the exclusive option agreement and other customary terms and conditions to be set forth in the license agreement, if any. Hisun agreed to pay us an additional $5.0 million within sixty days after the signing of the exclusive option agreement if it has not been terminated within such time period. The exclusive option agreement contemplated payments of an upfront license fee, milestone payments and royalties to Celsion if the exclusive license agreement were entered into.

Following our announcement on January 31, 2013 that ThermoDox® in combination with radiofrequency ablation did not meet the primary endpoint of the Phase III clinical trial for primary liver cancer, Hisun has elected to terminate the exclusive option agreement and not to pursue the option to enter into an exclusive license agreement with us for the China territory, which termination took effect as of February 1, 2013. As a result of the termination, we will not receive the additional $5 million payment or any future payment originally contemplated by the exclusive option agreement. The technology development contract will remain in effect while we and Hisun continue to collaborate and are evaluating next steps in relation to ThermoDox®, which include the sub-group analysis of the Chinese cohort of patients in the HEAT study and other activities to further the development of ThermoDox® for the China territory.

ThermoDox® in Relation to Cancers other than Primary Liver Cancer

In 2009, we formed a joint research agreement with Philips Healthcare, a division of Royal Philips Electronics, to evaluate the combination of Philips' high intensity focused ultrasound (HIFU) with ThermoDox® to determine the potential of this combination to treat a broad range of cancers. As a result of our progress to clinical development status, we are currently negotiating a new agreement with Philips. In August 2012, we announced FDA clearance to commence a Phase II study of ThermoDox® and Philip's Sonalleve® MR-Guided HIFU technology for the palliation of painful metastases to the bone caused by lung, prostate or breast cancers.

In June 2012, we announced a collaboration with the University of Oxford to begin a clinical study of ThermoDox® plus HIFU in the treatment of metastatic liver cancer. The trial, which is supported by the National Institute for Health Research Oxford Biomedical Research Centre, will be carried out as a multidisciplinary collaboration between us, the Oxford University Institute of Biomedical Engineering and the Oxford University Hospitals NHS Trust. This early phase clinical study is being finalized and will require approval from a local ethics committee. Treatment of the first patient is targeted for the first half of 2013.

We are also working with the Focused Ultrasound Foundation in preclinical studies designed to explore the use of ThermoDox® in combination with MR-guided HIFU for the treatment of pancreatic cancer. The studies are being conducted at the University of Washington (UW) School of Medicine. The UW research is expected to include animal models to confirm the ability of HIFU to target high concentrations of doxorubicin in proprietary pancreatic cancer cell lines and in vivo studies to assess the response to these tumors treated using ThermoDox® with and without HIFU-induced hyperthermia. We believe that these collaborations are just the beginning for combining important device technologies such as HIFU with our low heat activated liposomal technology.

In addition to the collaborations outlined above, we have two ongoing clinical studies: a Phase II study of ThermoDox® in combination with RFA for the treatment of colorectal liver metastases (the ABLATE study) and a Phase II study of ThermoDox® in combination with hyperthermia for the treatment of recurrent chest wall (RCW) breast cancer (the DIGNITY study). The primary study endpoint for the ABLATE study is based on one year local tumor recurrence, with secondary endpoints of time to progression and overall survival. The DIGNITY study has opened for enrollment with the activation of three clinical sites. The primary study endpoint of the DIGNITY study is bioequivalence of the drug supplied by our second U.S. manufacturing site, with the secondary endpoint of tumor response based on RECIST criteria. The continuation of these studies will be subject to a detailed analysis of the data from the HEAT study to assess the future strategic value of our product pipeline and research and development priorities.

Equity and Debt Financing

During 2012, we received approximately $10.2 million of gross proceeds from the exercise of warrants to purchase approximately 3.8 million shares of the Company's common stock and $0.7 million of gross proceeds from the exercise of options to purchase approximately 0.2 million shares of the Company's common stock.

On June 27, 2012, the Company entered into a Loan and Security Agreement (the "Credit Agreement") with Oxford Finance LLC ("Oxford") and Horizon Technology Finance Corporation ("Horizon"). The Credit Agreement provides for a secured term loan of up to $10 million, with 50% of any loans to be funded by Oxford and 50% to be funded by Horizon. The aggregate loan amount may be advanced in two tranches of $5 million each. The first tranche (the "Term A Loan") was made available to the Company on June 27, 2012 and the second tranche (the "Term B Loan") was to be made available, if at all, during the period beginning on the date that the Company achieved positive data in its Phase III clinical trial of RFA and ThermoDox® (the HEAT study) and ending on March 31, 2013. On January 31, 2013, the Company announced it did not meet the primary endpoint of the HEAT study, therefore the second tranche will not be drawn down.

The Term A Loan is scheduled to mature on October 15, 2015. The proceeds of the Credit Agreement will be used to fund the Company's working capital and general corporate purposes. The obligations under the Credit Agreement are secured by substantially all assets of the Company other than its intellectual property and certain other agreed-upon exclusions. The Term A Loan bears interest at a fixed rate of 11.75%. For an initial period extending for the Term A Loan through May 1, 2013, the Company is only required to make interest payments, after which the Company is required to make consecutive equal monthly payments of principle and interest to each lender as calculated pursuant to the Credit Agreement. The Company was also obligated to pay other customary facility fees for a credit facility of this size and type.

As a fee in connection with the Credit Agreement, the Company issued warrants to Horizon and Oxford to purchase the number of shares of the Company's common stock equal to 3% of each loan amount divided by the exercise price equal to $2.92 per share, which is calculated as the average NASDAQ closing price of Celsion common stock for the three days prior to the funding of the loan amount. This results in 51,370 warrant shares issuable in connection with the Term A Loan. The warrants are immediately exercisable for cash or by net exercise and will expire seven years

after their issuance.

On January 18, 2013, we entered into a technology development contract with Hisun, pursuant to which Hisun paid us a non-refundable research and development fee of $5 million to support our development of ThermoDox® and we will provide research data and other technical support in relation to a regulatory filing by Hisun with the SFDA for approval of ThermoDox® for manufacturing and sale in mainland China, Hong Kong and Macau. On January 18, 2013, we also entered into an exclusive option agreement with Hisun, terminable at any time by Hisun, under which we granted Hisun an option to enter into an exclusive license agreement with us for the manufacturing and commercialization of ThermoDox® with respect to all indications in the China territory under the terms and conditions set forth in the exclusive option agreement and other customary terms and conditions to be set forth in the license agreement, if any. Hisun agreed to pay us an additional $5 million within sixty days after the signing of the exclusive option agreement if it has not been terminated within such time period. The exclusive option agreement contemplated payments of an upfront license fee, milestone payments and royalties to us if the exclusive license agreement were entered into.

Following our announcement on January 31, 2013 that ThermoDox® in combination with RFA did not meet the primary endpoint of the Phase III clinical trial for primary liver cancer, Hisun elected to terminate the exclusive option agreement and not to pursue the option to enter into an exclusive license agreement with us for the China territory, which termination took effect as of February 1, 2013. As a result of the termination, we will not receive the additional $5 million payment or any future payment originally contemplated by the exclusive option agreement. The technology development contract will remain in effect while Hisun and we continue to collaborate and are evaluating next steps in relation to ThermoDox®, which include the sub-group analysis of the Chinese cohort of patients in the Phase III clinical trial for primary liver cancer and other activities to further the development of ThermoDox® for mainland China, Hong Kong and Macau.

On February 1, 2013, the Company entered into a Controlled Equity Offering SM Sales Agreement (the "ATM Agreement") with Cantor Fitzgerald & Co., as sales agent ("Cantor"), pursuant to which Celsion may offer and sell, from time to time, through Cantor, shares of our common stock having an aggregate offering price of up to $25.0 million (the "ATM Shares"). The ATM Shares will be issued pursuant to the Company's previously filed and effective Registration Statement on Form S-3 the base prospectus dated September 14, 2012, filed as part of such Registration Statement, and the prospectus supplement dated February 1, 2013, filed by the Company with the Securities and Exchange Commission. Under the Agreement, Cantor may sell ATM Shares by any method deemed to be an "at-the-market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, including sales made directly on The NASDAQ Capital Market, on any other existing trading market for the our common stock or to or through a market maker. From February 1, 2013 through February 25, 2013, the Company has sold and issued 5,381,670 ATM shares under the ATM Agreement, receiving approximately $6.8 million in net proceeds.

Celsion intends to use the net proceeds from the offering for general corporate purposes, including research and development activities, capital expenditures and working capital. The Company is not obligated to sell any ATM Shares under the ATM Agreement. Subject to the terms and conditions of the ATM Agreement, Cantor will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal law, rules and regulations and the rules of The NASDAQ Capital Market, to sell ATM Shares from time to time based upon the Company's instructions, including any price, time or size limits or other customary parameters or conditions Celsion may impose. In addition, pursuant to the terms and conditions of the ATM Agreement and subject to the instructions of Celsion, Cantor may sell ATM Shares by any other method permitted by law, including in privately negotiated transactions.

The ATM Agreement will terminate upon the earlier of (i) the sale of Shares under the ATM Agreement having an aggregate offering price of $25.0 million and (ii) the termination of the ATM Agreement by Cantor or the Company. The ATM Agreement may be terminated by Cantor or Celsion at any time upon 10 days' notice to the other party, or by Cantor at any time in certain circumstances, including the occurrence of a material adverse change in Celsion. The Company will pay Cantor a commission of 3.0% of the aggregate gross proceeds from each sale of ATM Shares and has agreed to provide Cantor with customary indemnification and contribution rights. The Company also agreed to reimburse Cantor for legal fees and disbursements, not to exceed $50,000 in the aggregate, in connection with entering into the ATM Agreement. In connection with the preferred stock offering discussed below, the Company agreed to not sell any ATM Shares for a period of one year from February 26, 2013.

On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain institutional investors, pursuant to which the Company agreed to sell, in a registered offering, an aggregate of 15,000.00422 shares of its Series A 0% convertible preferred stock and the warrants to purchase shares of its common stock, for an aggregate purchase price of approximately $15.0 million (the Preferred Stock Offering). The closing of the Preferred Stock Offering occurred on February 26, 2013, in which the Company received approximately $15.0 million in gross proceeds. Subject to certain ownership limitations, shares of Series A 0% convertible preferred stock are convertible, at the option of the holder thereof, into an aggregate of up to 12,072,438 shares of common stock, and the warrants are

exercisable to purchase an aggregate of up to 6,036,219 shares of common stock. Each warrant has an exercise price of $1.18 per share, equal to the closing bid price of common stock on February 21, 2013. The warrants are immediately exercisable and expire five years after its issuance. As of March 15, 2013, the Company has issued an aggregate of 8,018,112 shares of common stock upon conversion of 9,963 shares of the Series A 0% convertible preferred stock.

During the first quarter of 2013 thus far, we received approximately $0.4 million of gross proceeds from the exercise of warrants and options to purchase approximately 120,516 shares of the Company’s common stock.

We believe that our cash and investment resources of $23.1 million on hand at December 31, 2012, as well as the $26 million of net proceeds the Company collectively received in the first quarter of 2013 from the warrant exercises, the non-refundable payment from Hisun under the technology development agreement, the ATM Agreement and the Preferred Stock Offering, is sufficient to fund operations through 2015.

However, our future capital requirements will depend upon numerous unpredictable factors, including, without limitation, the cost, timing and outcomes of clinical studies and regulatory reviews of our proprietary drug candidates, our efforts to implement new collaborations, licenses and strategic transactions, general and administrative expenses, capital expenditures and other uses of cash. To complete the development and commercialization of our products, we will need to raise substantial amounts of additional capital to fund our operations. We do not have any committed sources of financing and cannot give assurance that alternate funding will be available in a timely manner, on acceptable terms or at all. We may need to pursue dilutive equity financings, such as the issuance of shares of common stock, convertible debt or other convertible or exercisable securities, which financings could dilute the percentage ownership of our current common stockholders and could significantly lower the market value of our common stock. Please refer to Item IA, Risk Factors, including, but not limited to, "We will need to raise substantial additional capital to fund our planned future operations, and we may be unable to secure such capital without dilutive financing transactions. If we are not able to raise additional capital, we may not be able to complete the development, testing and commercialization of our product candidates."

Critical Accounting Policies and Estimates

Our financial statements, which appear at Item 7 to this Annual Report on Form 10-K, have been prepared in accordance with accounting principles generally accepted in the United States, which require that we make certain assumptions and estimates and, in connection therewith, adopt certain accounting policies. Our significant accounting policies are set forth in Note 1 to our financial statements. Of those policies, we believe that the policies discussed below may involve a higher degree of judgment and may be more critical to an accurate reflection of our financial condition and results of operations.

Stock-Based Compensation

We follow the provisions of ASC topic 718 "Compensation" which requires the expense recognition over a service period for the fair value of share based compensation awards, such as stock options, restricted stock and performance based shares. This standard allows us to establish modeling assumptions as to expected stock price volatility, option terms, forfeiture and dividend rates, which directly impact estimated fair value as determined. Our practice is to utilize reasonable and supportable assumptions which are reviewed with our board of directors and its appropriate committee.

We review our financial reporting and disclosure practices and accounting policies on an ongoing basis to ensure that our financial reporting and disclosure system provides accurate and transparent information relative to the current economic and business environment. As part of the process, the Company reviews the selection, application and communication of critical accounting policies and financial disclosures. The preparation of our financial statements in conformity with accounting principles generally accepted in the United States requires that our management make estimates and assumptions that affect 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 revenues and expenses during the reporting period. We review our estimates and the methods by which they are determined on an ongoing basis. However, actual results could differ from our estimates.

Results of Operations

Comparison of Fiscal Year Ended December 31, 2012 and Fiscal Year Ended December 31, 2011.

Licensing Revenue

We had no licensing revenue for the year ended December 31, 2012. In the first quarter of 2011, we recognized $2 million in licensing revenue after amending our development, product supply and commercialization agreement for ThermoDox® with Yakult Honsha Co. to provide for accelerated payments of up to $4 million in future milestone payments, including $2 million that was paid to us on January 12, 2011, in exchange for a reduction in product approval milestones that we may receive in the future under the Yakult Agreement.

Research and Development Expenses

Research and Development (R&D) expenses decreased to $15.8 million in 2012 compared to $19.9 million in 2011. Costs associated with our Phase III HEAT study decreased to $7.7 million in 2012 compared to $12.1 million in 2011. This decrease is primarily the result of reaching enrollment targets for this pivotal study in the second quarter of 2012. Costs associated with our recurrent chest wall breast cancer clinical trial (RCW) remained relatively unchanged at $0.4 million in 2012 and 2011. Costs associated with the Company's CRLM trial were $0.2 million in 2012 compared to $0.3 million in 2011. Other clinical related expenses decreased slightly to $1.5 million in 2012 compared to $1.6 million in 2011. Preclinical costs increased slightly to $0.9 million in 2012 compared to $0.8 million in 2011. Costs associated with regulatory activities increased to $1.1 million in 2012 compared to $0.6 million in 2011 as the Company prepared for a potential submission of a New Drug Application (NDA) in the event of positive data from the HEAT Study. Costs associated with the production of ThermoDox® decreased to $4.0 million in 2012 compared to $4.3 million in 2011 primarily due to the timing of registration batches and ongoing development of manufacturing capabilities for ThermoDox®.

General and Administrative Expenses

General and administrative expenses increased to $6.4 million in 2012 compared to $5.2 million in 2011. This increase is largely the result of an increase in professional fees related to product market analysis, business development activities, and personnel costs in 2012 compared to 2011.

Change in common stock warrant liability

A common stock warrant liability was incurred as a result of warrants issued in a public offering in September 2009. This liability is calculated at its fair market value using the Black-Scholes option-pricing model and is adjusted at the end of each quarter. During 2012 we recorded a non-cash charge of $4.1 million based on the change in this fair value in 2012. During 2011 we recorded a non-cash benefit of $0.1 million based on the change in this fair value during 2011.

Investment income and interest expense

Investment income was $0.1 million in 2012 compared to $0.2 million in 2011. Interest expense in 2012 was $0.4 million mostly as a result of interest charges the Company incurred in connection with the Company's $5.0 million Venture Debt Loan facility. In connection with the shares of preferred stock we issued in our January 2011 preferred stock offering, we incurred dividend charges of approximately $0.5 million in 2011.

Other (expense) income

Other (expense) income for 2012 and 2011 was not significant.

Comparison of Fiscal Year Ended December 31, 2011 and Fiscal Year Ended December 31, 2010.

Licensing Revenue

In the first quarter of 2011, we recognized $2 million in licensing revenue after amending our development, product supply and commercialization agreement for ThermoDox® with Yakult Honsha Co. to provide for accelerated payments of up to $4 million in future milestone payments, including $2 million that was paid to us on January 12, 2011, in exchange for a reduction in product approval milestones that we may receive in the future under the Yakult Agreement. We had no licensing revenue for the year ended December 31, 2010.

Research and Development Expenses

Research and Development (R&D) expenses increased to $19.9 million in 2011 compared to $14.7 million in 2010. Costs associated with our Phase III HEAT study increased to $12.1 million in 2011 compared to $8.2 million in 2010. This increase is primarily the result of costs for investigator grants, monitoring costs and milestone payments associated with higher patient enrollment levels for the Phase III HEAT study. Costs associated with our recurrent chest wall breast cancer clinical trial (RCW) decreased to $0.4 million in 2011 compared to $0.6 million in 2010. We completed the Phase I portion of this trial in the first half of 2011. In 2011, we initiated a Phase II study of ThermoDox® in combination with radiofrequency ablation (RFA) for the treatment of colorectal liver metastases (CRLM). Costs associated with the Company's CRLM trial were $0.3 million in 2011. Costs associated with the production of ThermoDox® trials increased to $4.3 million in 2011 compared to $2.9 million in the same period of 2010 primarily due to developing our commercial manufacturing capabilities for ThermoDox®. Preclinical, regulatory, personnel and other costs remained relatively unchanged at $2.8 million in 2011 from 2010.

General and Administrative Expenses

General and administrative expenses increased slightly to $5.2 million in 2011 compared to $4.9 million in 2010. We continue to carefully monitor operating costs and focus our efforts and financial resources on completing enrollment and patient follow-up in the Phase III HEAT study.

Change in common stock warrant liability

A common stock warrant liability was incurred as a result of warrants issued in a public offering in September 2009. This liability is calculated at its fair market value using the Black-Scholes option-pricing model and is adjusted at the end of each quarter. During 2011 and 2010, we recorded a non-cash benefit of $0.1 million and $0.6 million respectively based on the change in this fair value during the respective years.

Interest income and expense

Interest income was $0.2 million in 2011 as a result of the financing activities we completed during 2011. In connection with the shares of preferred stock we issued in our January 2011 registered direct equity offering, we incurred dividend charges of approximately $0.5 million in 2011. In connection with our July 2011 financings, all outstanding shares of preferred stock mandatorily converted into common stock in August 2011. Interest income and interest expense were not significant in 2010.

Other income

Other income for 2011 was not significant compared to $0.2 million in 2010. In November 2010, we were awarded a $244,000 grant under the Qualifying Therapeutic Discovery Project (QTDP) program under The Patient Protection and Affordable Care Act of 2010 (PPACA). This maximum grant amount for a single program was awarded to us for the ThermoDox® clinical development program, which is currently conducting clinical trials for primary liver cancer and recurrent chest wall breast cancer.

Financial Condition, Liquidity and Capital Resources

Since our inception, we have incurred significant losses and negative cash flows from operations. We have financed our operations primarily through the net aggregate proceeds of $43 million we received from the divestiture of our medical device business to Boston Scientific in 2007 (paid to us in installments of $13 million in 2007 and $15 million in each of 2008 and 2009), amounts received under our product licensing agreement with Yakult and a series of equity financings. The process of developing and commercializing ThermoDox® requires significant research and development work and clinical trial studies, as well as significant manufacturing and process development efforts. We expect these activities, together with our general and administrative expenses to result in significant operating losses for the foreseeable future. Our expenses have significantly and regularly exceeded our revenues, and we had an accumulated deficit of $151 million at December 31, 2012.

At December 31, 2012 we had total current assets of $23.6 million (including cash, cash equivalents and short term investments and related interest receivable on short term investments of $23.1 million) and current liabilities of $5.0 million, resulting in net working capital of $18.6 million. At December 31, 2011, we had total current assets of $31.5 million (including cash, cash equivalents and short term investments and related interest receivable on short term investments of $30.5 million) and current liabilities of $6.2 million, resulting in working capital of $25.3 million.

During 2012, we received approximately $10.2 million of gross proceeds from the exercise of warrants to purchase approximately 3.8 million shares of the Company’s common stock and $0.7 million of gross proceeds from the

exercise of options to purchase approximately 0.2 million shares of the Company's common stock.

On June 27, 2012, the Company entered into a Loan and Security Agreement (the "Credit Agreement") with Oxford Finance LLC ("Oxford") and Horizon Technology Finance Corporation ("Horizon"). The Credit Agreement provides for a secured term loan of up to $10 million, with 50% of any loans to be funded by Oxford and 50% to be funded by Horizon. The aggregate loan amount may be advanced in two tranches of $5 million each. The first tranche (the "Term A Loan") was made available to the Company on June 27, 2012 and the second tranche (the "Term B Loan") was to be made available, if at all, during the period beginning on the date that the Company achieved positive data in its Phase III clinical trial of RFA and ThermoDox® (the HEAT study) and ending on March 31, 2013. On January 31, 2013, the Company announced it did not meet the primary endpoint of the HEAT study, therefore the Term B Loan will not be drawn down.

The Term A Loan is scheduled to mature on October 15, 2015. The proceeds of the Credit Agreement will be used to fund the Company's working capital and general corporate purposes. The obligations under the Credit Agreement are secured by substantially all assets of the Company other than its intellectual property and certain other agreed-upon exclusions. The Term A Loan bears interest at a fixed rate of 11.75%. For an initial period extending for the Term A Loan through May 1, 2013, the Company is only required to make interest payments, after which the Company is required to make consecutive equal monthly payments of principle and interest to each lender as calculated pursuant to the Credit Agreement. The Company was also obligated to pay other customary facility fees for a credit facility of this size and type.

As a fee in connection with the Credit Agreement, the Company issued warrants to Horizon and Oxford to purchase the number of shares of the Company's common stock equal to 3% of each loan amount divided by the exercise price equal to $2.92 per share, which is calculated as the average NASDAQ closing price of Celsion common stock for the three days prior to the funding of the loan amount. This results in 51,370 warrant shares issuable in connection with the Term A Loan. The warrants are immediately exercisable for cash or by net exercise and will expire seven years after their issuance.

During the first quarter of 2013 thus far, we received approximately $0.4 million of gross proceeds from the exercise of warrants and options to purchase approximately 120,516 shares of the Company's common stock.

On January 18, 2013, we entered into a technology development contract with Hisun, pursuant to which Hisun paid us a non-refundable research and development fee of $5 million to support our development of ThermoDox® and we will provide research data and other technical support in relation to a regulatory filing by Hisun for approval of ThermoDox® for manufacturing and sale in mainland China, Hong Kong and Macau. Following our announcement on January 31, 2013 that the HEAT study failed to meet its primary endpoint, we and Hisun continue to collaborate and evaluate next steps in relation to ThermoDox®, which include the sub-group analysis of the Chinese cohort of patients in the Phase III clinical trial for primary liver cancer and other activities to further the development of ThermoDox® for mainland China, Hong Kong and Macau.

On February 1, 2013, the Company entered into a Controlled Equity Offering SM Sales Agreement (the "ATM Agreement") with Cantor Fitzgerald & Co., as sales agent ("Cantor"), pursuant to which Celsion may offer and sell, from time to time, through Cantor, shares of our common stock having an aggregate offering price of up to $25.0 million (the "ATM Shares"). The ATM Shares will be issued pursuant to the Company's previously filed and effective Registration Statement on Form S-3 the base prospectus dated September 14, 2012, filed as part of such Registration Statement, and the prospectus supplement dated February 1, 2013, filed by the Company with the Securities and Exchange Commission. Under the Agreement, Cantor may sell ATM Shares by any method deemed to be an "at-the-market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, including sales made directly on The NASDAQ Capital Market, on any other existing trading market for the our common stock or to or through a market maker. From February 1, 2013 through February 20, 2013, the Company has sold and issued 5,381,670 ATM shares under the ATM Agreement, receiving approximately $6.8 million in net proceeds.

Celsion intends to use the net proceeds from the offering for general corporate purposes, including research and development activities, capital expenditures and working capital. The Company is not obligated to sell any ATM Shares under the ATM Agreement. Subject to the terms and conditions of the ATM Agreement, Cantor will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal law, rules and regulations and the rules of The NASDAQ Capital Market, to sell ATM Shares from time to time based upon the Company's instructions, including any price, time or size limits or other customary parameters or conditions Celsion may impose. In addition, pursuant to the terms and conditions of the ATM Agreement and subject to the instructions of Celsion, Cantor may sell ATM Shares by any other method permitted by law, including in privately negotiated transactions. In connection with the preferred stock offering discussed below, the Company agreed to not

sell any ATM Shares for a period of one year from February 26, 2013.

The ATM Agreement will terminate upon the earlier of (i) the sale of Shares under the ATM Agreement having an aggregate offering price of $25.0 million and (ii) the termination of the ATM Agreement by Cantor or the Company. The ATM Agreement may be terminated by Cantor or Celsion at any time upon 10 days' notice to the other party, or by Cantor at any time in certain circumstances, including the occurrence of a material adverse change in Celsion. The Company will pay Cantor a commission of 3.0% of the aggregate gross proceeds from each sale of ATM Shares and has agreed to provide Cantor with customary indemnification and contribution rights. The Company also agreed to reimburse Cantor for legal fees and disbursements, not to exceed $50,000 in the aggregate, in connection with entering into the ATM Agreement. In connection with the preferred stock offering discussed below, the Company agreed to not sell any ATM Shares for a period of one year from February 26, 2013.

On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain institutional investors, pursuant to which the Company agreed to sell, in a registered offering, an aggregate of 15,000.00422 shares of its Series A 0% convertible preferred stock and the warrants to purchase shares of its common stock, for an aggregate purchase price of approximately $15.0 million (the Preferred Stock Offering). The closing of the Preferred Stock Offering occurred on February 26, 2013, in which the Company received approximately $15.0 million in gross proceeds. Subject to certain ownership limitations, shares of Series A 0% convertible preferred stock are convertible, at the option of the holder thereof, into an aggregate of up to 12,072,438 shares of common stock, and the warrants are exercisable to purchase an aggregate of up to 6,036,219 shares of common stock. Each warrant has an exercise price of $1.18 per share, equal to the closing bid price of common stock on February 21, 2013. The warrants are immediately exercisable and expire five years after its issuance. As of March 15, 2013, the Company has issued an aggregate of 8,018,112 shares of common stock upon conversion of 9,963 shares of the Series A 0% convertible preferred stock.

We believe that our cash and investment resources of $23.1 million on hand at December 31, 2012, as well as the $26 million of net proceeds the Company collectively received in the first quarter of 2013 from the warrant exercises, the non-refundable payment from Hisun under the technology development agreement, the ATM Agreement and the Preferred Stock Offering, is sufficient to fund operations through 2015. However, our future capital requirements will depend upon numerous unpredictable factors, including, without limitation, the cost, timing and outcomes of clinical studies and regulatory reviews of our proprietary drug candidates, our efforts to implement new collaborations, licenses and strategic transactions, general and administrative expenses, capital expenditures and other uses of cash.

Net cash used in operating activities for the 2012 was $22.3 million. Our 2012 net loss included $1.1 million in non-cash stock-based compensation expense and $4.1 million in non-cash charge based on the change in the common stock warrant liability.

Net cash provided by financing activities was $15.5 million during 2012 which consisted of approximately $10.1 million of net proceeds from the exercise of warrants to purchase approximately 3.8 million shares of the Company’s common stock, $0.7 million of gross proceeds from the exercise of options to purchase approximately 0.2 million shares of the Company’s common stock and approximately $5.0 million of gross proceeds from the Credit Agreement.

The $22.3 million net cash used in operating activities was mostly funded from cash and short term investments. At December 31, 2012, we had cash, cash equivalents and short term investments and related interest receivable on short term investments of $23.1 million. We will need substantial additional capital to complete our clinical trials, obtain marketing approvals and to commercialize our products.

We may seek additional capital through further public or private equity offerings, debt financing, additional strategic alliance and licensing arrangements, collaborative arrangements, or some combination of these financing alternatives. If we raise additional funds through the issuance of equity securities, the percentage ownership of our stockholders could be significantly diluted and the newly issued equity securities may have rights, preferences, or privileges senior to those of the holders of our common stock. If we raise funds through the issuance of debt securities, those securities may have rights, preferences, and privileges senior to those of our common stock. If we seek strategic alliances, licenses, or other alternative arrangements, such as arrangements with collaborative partners or others, we may need to relinquish rights to certain of our existing or future technologies, product candidates, or products we would otherwise seek to develop or commercialize on our own, or to license the rights to our technologies, product candidates, or products on terms that are not favorable to us. The overall status of the economic climate could also result in the terms of any equity offering, debt financing, or alliance, license, or other arrangement being even less favorable to us and our stockholders than if the overall economic climate were stronger. We also will continue to look for government sponsored research collaborations and grants to help offset future anticipated losses from operations and, to a lesser extent, interest income.

If adequate funds are not available through either the capital markets, strategic alliances, or collaborators, we may be required to delay or, reduce the scope of, or eliminate our research, development, clinical programs, manufacturing, or commercialization efforts, or effect additional changes to our facilities or personnel, or obtain funds through other arrangements that may require us to relinquish some of our assets or rights to certain of our existing or future technologies, product candidates, or products on terms not favorable to us.

Contractual Obligations

In 2011, the Company executed a lease with Brandywine Operating Partnership, L.P. (Brandywine), a Delaware limited partnership for a 10,870 square foot premises located in Lawrenceville, New Jersey. The lease has a term of 66 months and provides for 6 months rent free, with the first monthly rent payment of approximately $23,000 due in April 2012. Also, as required by the lease, the Company provided Brandywine with an irrevocable and unconditional standby letter of credit for $250,000, which the Company secured with an escrow deposit at its banking institution of this same amount. The standby letter of credit will be reduced by $50,000 on each of the 19th , 31st and 43rd months from the initial term, with the remaining $100,000 amount remaining until the lease term has expired.

In November 2011, the Company financed $144,448 of lab equipment through a capital lease. This lease obligation has thirty monthly payments of $5,651 through February 2014. During 2012, the Company made principal and interest payments totaling $67,817. The outstanding lease obligation is $71,602 as of December 31, 2012.

Following is a summary of the future minimum payments required under leases that have initial or remaining lease terms of one year or more as of December 31, 2012:

For the year ending December 31:	Capital Leases	Operating Leases
2013	$ 67,817	$ 280,808
2014	11,303	286,243
2015	—	291,678
2016	—	297,113
2017 and beyond	—	99,643
Total minimum lease payments	79,120	$ 1,255,485
Less amounts of lease payments that represent interest	7,518	
Present value of future minimum capital lease payments	71,602	
Less current obligations under capital leases	60,711	
	$ 10,891	

Following is a schedule of future principle payments due on the Credit Agreement as discussed above:

	Credit Agreement
For the year ending December 31:	
2013	$ 1,349,744
2014	1,994,032
2015	1,656,224
	$ 5,000,000

Off-Balance Sheet Arrangements

We do not utilize off-balance sheet financing arrangements as a source of liquidity or financing.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The primary objective of our cash investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities that we invest in may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the interest rate later rises, the principal amount of our investment will probably decline. A hypothetical 50 basis point increase in interest rates reduces the fair value of our available-for-sale securities at December 31, 2012 by an immaterial amount. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and marketable securities in a variety of securities, including commercial paper, government and non-government debt securities and/or money market funds that invest in such securities. We have no holdings of derivative financial or commodity instruments. As of December 31, 2012, our investments consisted of investments in corporate notes and obligations or in money market accounts and checking funds with variable market rates of interest. We believe our credit risk is immaterial.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements, supplementary data and report of independent registered public accounting firm are filed as part of this report on pages F-1 through F-29 and incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Disclosure Controls and Procedures

We have conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)) under the supervision, and with the participation, of our management, including our principal executive officer and principal financial officer. Based on that evaluation, our principal executive officer and principal financial officer concluded that as of December 31, 2012, which is the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures are effective.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is a process designed by, or under the supervision of, our chief executive officer and chief financial officer, or persons performing similar functions, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America (GAAP). Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and disposition of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP and that receipts and expenditures of the Company are being made only in accordance with authorization of management and directors of the Company; and (iii) 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.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2012. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (COSO Framework). Based on its evaluation, management has concluded that the Company's internal control over financial reporting is effective as of December 31, 2012.

This Annual Report on Form 10-K includes an attestation report of the Company's independent registered public accounting firm, Stegman and Company, regarding internal control over financial reporting.

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. A control system, no matter how well designed and operated can provide only reasonable, but not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to there cost.

(c) Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting in the fiscal quarter ended December 31, 2012, which were identified in connection with our management's evaluation required by paragraph (d) of rules 13a-15 and 15d-15 under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(d) Inherent Limitations on the Effectiveness of Controls

Our management, including the chief executive officer and chief financial officer, does not expect that our disclosure controls and procedures and our internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of eth control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

This Annual Report on Form 10-K includes an attestation report of the Company's independent registered public accounting firm, Stegman and Company, regarding internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item 10 is herein incorporated by reference to the definitive Proxy Statement to be filed with the Securities and Exchange Commission (SEC) pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 is herein incorporated by reference to the definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item 12 is herein incorporated by reference to the definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item 13 is herein incorporated by reference to the definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item 14 is herein incorporated by reference to the definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. FINANCIAL STATEMENTS

The following is a list of the financial statements of Celsion Corporation filed with this Annual Report on Form 10-K, together with the reports of our independent registered public accountants and Management's Report on Internal Control over Financial Reporting.

2. FINANCIAL STATEMENT SCHEDULES

All financial statement schedules are omitted because the information is inapplicable or presented in the notes to the financial statements.

3. EXHIBITS

The following documents are included as exhibits to this report:

EXHIBIT NO.	DESCRIPTION
3.1	Certificate of Incorporation of Celsion, as amended, incorporated herein by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2004.
3.2	Certificate of Ownership and Merger of Celsion Corporation (a Maryland Corporation) into Celsion (Delaware) Corporation (inter alia, changing the Company's name to "Celsion Corporation" from "Celsion (Delaware) Corporation), incorporated herein by reference to Exhibit 3.1.3 to the Annual Report on Form 10-K of the Company for the year ended September 30, 2000.
3.3	Certificate of Amendment of the Certificate of Incorporation effective and filed on February 27, 2006, incorporated therein by reference to Exhibit 3.1 to the Current Report on Form 8-K of the Company filed on March 1, 2006.
3.4	Certificate of Designation of Preferences, Rights and Limitations of Series A 0% Convertible Preferred Stock, incorporated herein by reference to Exhibit 3.1

to the Current Report on Form 8-K of the Company, filed on February 26, 2013.

3.5	By-laws of the Company, as amended and restated, incorporated herein by reference to Exhibit 3.1 to the Current Report on Form 8-K of the Company, filed December 1, 2011.
4.1	Form of Common Stock Certificate, par value $0.01, incorporated herein by reference to Exhibit 4.1 to the Annual Report on Form 10-K of the Company for the year ended September 30, 2000.
4.2	Form of Common Stock Warrant, incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K of the Company, filed with the SEC on September 28, 2009.
4.3	Registration Rights Agreement, dated June 17, 2010, by and between Celsion Corporation and Small Cap Biotech Value, Ltd., incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K of the Company, filed with the SEC on June 18, 2010.
4.4	Form of Common Stock Warrant, incorporated herein by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the SEC on January 18, 2011.
4.5	Form of Common Stock Warrant incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the SEC on June 2, 2011.
4.6	Registration Rights Agreement, dated May 26, 2011, by and among Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the SEC on June 2, 2011.
4.7	Form of Common Stock Purchase Warrant, incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the SEC on July 6, 2011.
4.8	Registration Rights Agreement, dated July 25, 2011, by and between Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the SEC on July 25, 2011.
4.9	Form of Common Stock Purchase Warrant, incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the SEC on July 25, 2011.
4.10	Form of Warrant to Purchase Common Stock, incorporated herein by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the SEC on July 25, 2011.
4.11	Form Warrant to Purchase Common Stock Purchase, incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the SEC on December 6, 2011.

4.12	Registration Rights Agreement, dated December 1, 2011, by and between Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the SEC on December 6, 2011.
4.13	Warrant to Purchase Stock, dated June 27, 2012, by and between Celsion Corporation and Oxford Financing LLC, incorporated herein by reference to Exhibit 4.1 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2012.
4.14	Warrant to Purchase Stock, dated June 27, 2012, by and between Celsion Corporation and Horizon Technology Finance Corporation, incorporated herein by reference to Exhibit 4.2 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2012.
4.15	Form of Common Stock Purchase Warrant, incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K of the Company, filed on February 26, 2013.
10.1***	Celsion Corporation 2004 Stock Incentive Plan, incorporated herein by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2004.

10.2***	Celsion Corporation 2007 Stock Incentive Plan, as amended, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on June 7, 2012.
10.3***	Form of Restricted Stock Agreement for Celsion Corporation 2004 Stock Incentive Plan, incorporated herein by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2006.
10.4***	Form of Stock Option Grant Agreement for Celsion Corporation 2004 Stock Incentive Plan, incorporated herein by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2006.
10.5***	Form of Restricted Stock Agreement for Celsion Corporation 2007 Stock Incentive Plan, incorporated herein by reference to Exhibit 10.1.5 to the Annual Report on Form 10-K of the Company for the year ended December 31, 2007.
10.6***	Form of Stock Option Grant Agreement for Celsion Corporation 2007 Stock Incentive Plan, incorporated herein by reference to Exhibit10.1.6 to the Annual Report on Form 10-K of the Company for the year ended December 31, 2007.
10.7***	Restricted Stock Agreement, dated October 3, 2006, between Celsion Corporation and William Hahne, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on October 10, 2006.
10.8***	Stock Option Grant Agreement, dated October 3, 2006, between Celsion Corporation and William Hahne, incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K of the Company, filed on October 10, 2006.
10.9***	Stock Option Agreement effective January 3, 2007, between Celsion Corporation and Michael H. Tardugno, incorporated herein by reference Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on January 3, 2007.
10.10***	Employment Agreement, effective January 3, 2007, between Celsion Corporation and Mr. Michael H. Tardugno, incorporated herein by reference to Exhibit 99.1 to the Current Report on Form 8-K of the Company, filed on December 21, 2006.
10.11***	Employment Agreement, effective March 1, 2009, between the Company and Michael H. Tardugno, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on February 19, 2008.
10.12***	Separation Agreement and General Release, dated January 6, 2010, between Celsion Corporation and Sean Moran, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on January 8, 2010.
10.13***	Employment Offer Letter, entered into on June 15, 2010, between the Company and Jeffrey W. Church, incorporated herein by

	reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on June 18, 2010.
10.14*	Patent License Agreement between the Company and Duke University dated November 10, 1999, incorporated herein by reference to Exhibit 10.9 to the Annual Report on Form 10-K of the Company for the year ended September 30, 1999.
10.15*	License Agreement dated July 18, 2003, between the Company and Duke University, incorporated herein by reference to Exhibit 10.1 to the Registration Statement of the Company (File No. 333-108318) filed on August 28, 2003.

10.16*	Settlement and License Agreement dated February 7, 2007, by and among Celsion Corporation, American Medical Systems and AMS Research Corporation, incorporated herein by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of the Company for the quarter ended March 31, 2007.
10.17	Loan and Security Agreement, dated as of November 9, 2007, by and between Celsion Corporation and Manufacturers and Traders Trust Company, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed on November 14, 2007.
10.18*	Development, Product Supply and Commercialization Agreement, effective December 5, 2008, by and between the Company and Yakult Honsha Co., Ltd., herein by reference to Exhibit 10.15 to the Annual Report on Form 10-K of the Company for the Year Ended December 31, 2008.
10.19*	The 2nd Amendment To The Development, Product Supply And Commercialization Agreement, effective January 7, 2011, by and between the Company and Yakult Honsha Co., Ltd. incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company filed with the SEC on January 18, 2011.
10.20	Common Stock Purchase Agreement, dated June 17, 2010, by and between Celsion Corporation and Small Cap Biotech Value, Ltd., incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company filed on June 18, 2010.
10.21	Securities Purchase Agreement dated January 12, 2011 by and among Celsion Corporation and the Investors named therein, incorporated herein by reference to Exhibit 10.2 on Form 8-K of the Company filed on January 18, 2011.
10.22	Form of Purchase Agreement, dated May 26, 2011, by and among Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on June 2, 2011.
10.33	Form of Securities Purchase Agreement, dated June 30, 2011, by and among Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on July 6, 2011.
10.24	Form of Securities Purchase Agreement, dated July 20, 2011, by and among Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on July 25, 2011
10.25	Form of Purchase Agreement, dated July 20, 2011, by and among Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the SEC on July 25, 2011.

10.26	Lease Agreement, executed July 21, 2011, by and between Celsion Corporation and Brandywine Operating Partnership, L.P., incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on July 25, 2011.
10.27***	Offer letter, dated July 8, 2011, by and between Celsion Corporation and Gregory Weaver, incorporated herein by reference to Exhibit 10.37 to the Annual Report on form 10-K/A of the Company for the year ended December 31, 2011.
10.28***	Change in control severance agreement, dated November 29, 2011, by and between Celsion Corporation and Michael H. Tardugno, incorporated herein by reference to Exhibit 10.38 to the Annual Report on Form 10-K/A of the Company for the year ended December 31, 2011.

10.29***	Change in control severance agreement, dated November 29, 2011, by and between Celsion Corporation and Gregory Weaver, incorporated herein by reference to Exhibit 10.39 to the Annual Report on Form 10-K/A of the Company for the year ended December 31, 2011.
10.30***	Change in control severance agreement, dated November 29, 2011, by and between Celsion Corporation and Nicholas Borys, M.D., incorporated herein by reference to Exhibit 10.40 to the Annual Report on Form 10-K/A of the Company for the year ended December 31, 2011.
10.31***	Change in control severance agreement, dated November 29, 2011, by and between Celsion Corporation and Jeffrey W. Church, incorporated herein by reference to Exhibit 10.41 to the Annual Report on Form 10-K/A of the Company for the year ended December 31, 2011.
10.32***	Change in control severance agreement, dated November 29, 2011, by and between Celsion Corporation and Robert A. Reed, incorporated herein by reference to Exhibit 10.42 to the Annual Report on Form 10-K/A of the Company for the year ended December 31, 2011.
10.33***	Form of Purchase Agreement, dated December 1, 2011, by and among Celsion Corporation and the purchasers named therein, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on December 6, 2011.
10.34*	Technology Development Agreement effective as of May 7, 2012, by and between Celsion Corporation and Zhejiang Hisun Pharmaceutical Co. Ltd., incorporated herein by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2012.
10.35	Loan and Security Agreement, dated June 27, 2012, by and among Celsion Corporation, Oxford Finance LLC, as collateral agent, and the lenders named therein, incorporated herein by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2012.
10.36	Controlled Equity OfferingSM Sales Agreement, dated February 1, 2013, by and between Celsion Corporation and Cantor Fitzgerald & Co., incorporated herein by reference to the Current Report on Form 8-K of the Company, filed with the SEC on February 1, 2013.
10.37	Securities Purchase Agreement, dated February 22, 2013, by and among Celsion and the purchasers named therein, incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company, filed with the SEC on February 26, 2013.
23.1+	Consent of Stegman & Company, independent registered public accounting firm for the Company.
31.1+	

	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2+	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1^	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2^	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101**	The following materials from the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, formatted in XBRL (Extensible Business Reporting Language): (i) the unaudited Condensed Consolidated Balance Sheets, (ii) the unaudited Condensed Consolidated Statements of Operations, (iii) the unaudited Condensed Consolidated Statements of Cash Flows, and (iv) Notes to Condensed Consolidated Financial Statements.

* Portions of this exhibit have been omitted pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, amended, and the omitted material has been separately filed with the Securities and Exchange Commission.

\+ Filed herewith.

^ Furnished herewith.

** Exhibit 101 is being furnished and, in accordance with Rule 406T of Regulation S-T, shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability of that section, nor shall such exhibit be deemed to be incorporated by reference in any registration statement or other document filed under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

*** 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 its annual report on Form 10-K to be signed on its behalf by the undersigned thereunto duly authorized.

CELSION CORPORATION
Registrant

March 18, 2013	By:	/s/ Michael H. Tardugno Michael H. Tardugno President and Chief Executive Officer
March 18, 2013	By:	/s/ Gregory Weaver Gregory Weaver Senior Vice President and Chief Financial Officer

Pursuant to the requirement of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

Name	Position	Date
/s/ MICHAEL H. TARDUGNO (Michael H. Tardugno)	President and Chief Executive Officer (Principal Executive Officer) and Director	March 18, 2013
/s/ GREGORY WEAVER (Gregory Weaver)	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	March 18, 2013
/s/ TIMOTHY J. TUMMINELLO (Timothy J. Tumminello)	Controller and Chief Accounting Officer	March 18, 2013
/s/ MAX E. LINK (Max E. Link, PhD.)	Chairman of the Board, Director	March 18, 2013
/s/ AUGUSTINE CHOW (Augustine Chow, PhD.)	Director	March 18, 2013
/s/ FREDERICK J. FRITZ (Frederick J. Fritz)	Director	March 18, 2013

/s/ ROBERT W. HOOPER (Robert W. Hooper)	Director	March 18, 2013
/s/ ALBERTO MARTINEZ (Alberto Martinez, MD)	Director	March 18, 2013

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Celsion Corporation
Lawrenceville, New Jersey

We have audited the accompanying balance sheets of Celsion Corporation (the "Company") as of December 31, 2012 and 2011, and the related statements of operations, statements of comprehensive loss, changes in stockholders' equity, and cash flows for each of the years in the three year period ended December 31, 2012. We also have audited the Company's internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, 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. Our responsibility is to express an opinion on these financial statements and an opinion on the company's internal control over financial reporting 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 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 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, the financial statements referred to above present fairly, in all material respects, the financial position of Celsion Corporation as of December 31, 2012 and 2011, and the results of its operations and its cash flows for each of the years in the three year period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, Celsion Corporation maintained, in all material

respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

/s/ Stegman & Company
Baltimore, Maryland
March 18, 2013

CELSION CORPORATION
BALANCE SHEETS

ASSETS	December 31, 2012	2011
Current assets:		
Cash and cash equivalents	$ 14,991,488	$ 20,145,854
Investment securities – available for sale	8,037,620	10,157,160
Accrued interest receivable on investment securities	65,925	243,745
Advances and deposits on investigator grants	246,352	758,297
Vendor reimbursements receivable	116,872	-
Other current assets	190,727	203,429
Total current assets	23,648,984	31,508,485
Property and equipment (at cost, less accumulated depreciation of $924,961 and $643,472, respectively)	1,114,621	782,720
Other assets:		
Deferred financing fees	306,495	–
Security deposit on letter of credit	250,000	250,000
Patent license fees, net	28,125	35,625
Deposits and other assets	10,693	72,629
Total other assets	595,313	358,254
Total assets	$ 25,358,918	$ 32,649,459
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
Current liabilities:		
Accounts payable - trade	$ 2,339,768	$ 4,010,203
Other accrued liabilities	1,254,979	2,031,934
Note payable - current portion	1,410,455	110,287
Total current liabilities	5,005,202	6,152,424
Common stock warrant liability	4,283,932	166,398
Note payable – non-current portion	3,661,147	71,602
Other liabilities - noncurrent	446,779	65,467
Total liabilities	13,397,060	6,455,891
Commitments and contingencies		
Stockholders' equity:		
Common stock - $0.01 par value (75,000,000 shares authorized; 37,967,708 and 33,899,057 shares issued at December 31, 2012 and 2011 and 37,302,785 and 33,186,325 shares outstanding at December 31, 2012 and 2011, respectively)	379,677	338,991
Preferred Stock - $0.01 par value (100,000 shares authorized, 5,000 shares issued and zero shares outstanding at December 31, 2012 and 2011)	–	–
Additional paid-in capital	165,276,069	153,237,225
Accumulated other comprehensive loss	(126,607)	(276,700)
Accumulated deficit	(150,876,770)	(124,221,823)
Subtotal	14,652,369	29,077,693

Treasury stock, at cost (664,923 and 712,732 shares at December 31, 2012 and 2011, respectively)	(2,690,511)	(2,884,125)
Total stockholders' equity	11,961,858	26,193,568
Total liabilities and stockholders' equity	$ 25,358,918	$ 32,649,459

See accompanying notes to the financial statements.

CELSION CORPORATION
STATEMENTS OF OPERATIONS

	Year ended December 31,		
	2012	2011	2010
Licensing revenue	$ –	$ 2,000,000	$ –
Operating expenses:			
Research and development	15,770,166	19,863,836	14,714,460
General and administrative	6,372,551	5,154,933	4,922,967
Total operating expenses	22,142,717	25,018,769	19,637,427
Loss from operations	(22,142,717)	(23,018,769)	(19,637,427)
Other (expense) income:			
(Loss) gain from valuation of common stock warrant liability	(4,117,534)	81,733	573,760
Investment income	52,322	174,064	32,289
Interest expense	(359,413)	(501,855)	(31,517)
Other (expense) income	(1,040)	42,149	244,460
Total other (expense) income	(4,425,665)	(203,909)	818,992
Net loss	$ (26,568,382)	$ (23,222,678)	$ (18,818,435)
Net loss per common share – basic and diluted	$ (0.76)	$ (1.11)	$ (1.52)
Weighted average common shares outstanding – basic and diluted	34,789,068	20,917,678	12,375,402

See accompanying notes to the financial statements.

CELSION CORPORATION
STATEMENTS OF COMPREHENSIVE LOSS

	Year ended December 31,		
	2012	2011	2010
Net loss	$ (26,568,382)	$ (23,222,678)	$ (18,818,435)
Other comprehensive income (loss)			
Unrealized gain (loss) on investment securities	150,093	(138,763)	(86,540)
Comprehensive loss	$ (26,418,289)	$ (23,361,441)	$ (18,904,975)

CELSION CORPORATION
STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2012	2011	2010
Cash flows from operating activities:			
Net loss	$ (26,568,382)	$ (23,222,678)	$ (18,818,435)
Non-cash items included in net loss:			
Depreciation and amortization	281,489	169,358	165,480
Change in fair value of common stock warrant liability	4,117,534	(81,733)	(573,760)
Stock based compensation - options	1,084,326	1,036,337	1,295,382
Stock based compensation – restricted stock	59,438	171,549	357,678
Shares issued out of treasury	57,239	60,360	–
Amortization of patent license fee	7,500	7,500	7,500
Shares issued in exchange for services	49,810	71,550	18,060
Change in deferred rent liability	55,256	65,467	–
Net changes in:			
Refundable income taxes	–	–	806,255
Prepaid expenses and other	585,595	(393,676)	340,837
Deposits and other assets	61,936	4,167	20,286
Accounts payable	(1,344,379)	(538,383)	2,357,629
Other accrued liabilities	(776,955)	(92,255)	655,699
Net cash used in operating activities	(22,329,593)	(22,742,437)	(13,367,389)
Cash flows from investing activities:			
Purchases of investment securities	(16,208,958)	(10,659,238)	(11,844,356)
Proceeds from sale and maturity of investment securities	18,478,591	395,556	17,057,726
Security deposit on letter of credit	–	(250,000)	–
Purchases of property and equipment	(613,390)	(573,406)	(6,745)
Net cash provided by (used in) investing activities	1,656,243	(11,087,088)	5,206,625
Cash flows from financing activities:			
Proceeds from sale of 8% Series A Redeemable, Convertible Preferred Stock, net of issuance costs	–	4,324,080	–
Proceeds from sale of common stock equity, net of issuance costs	–	48,082,025	2,484,536
Proceeds from exercise of common stock warrants	10,106,557	428,337	–
Proceeds from exercise of common stock options	697,220	–	–
Proceeds from note payable	4,825,494	144,448	–
Principal payments on note payable	(110,287)	(142,427)	(108,332)
Net cash provided by financing activities	15,518,984	52,836,463	2,376,204
(Decrease) increase in cash and cash equivalents	(5,154,366)	19,006,938	(5,784,560)
Cash and cash equivalents at beginning of period	20,145,854	1,138,916	6,923,476
Cash and cash equivalents at end of period	$ 14,991,488	$ 20,145,854	$ 1,138,916
Cash paid for:			

Interest	$ 359,413	$ 501,855	$ 31,517
Income taxes	$ -	$ -	$ -

CELSION CORPORATION
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
YEARS ENDED DECEMBER 31, 2012, 2011 AND 2010

	Common Stock Outstanding			Treasury Stock				
	Shares	Amount	Additional Paid in Capital	Shares	Amount	Accum. Other Compr. Income	Accumulated Deficit	Total
Balance December 31, 2009	12,134,900	$ 128,952	$ 95,035,165	760,274	$ (3,076,670)	$ 68,173	$ (82,119,826)	$ 10,035,794
Net loss	-	-	-	-	-	-	(18,818,435)	(18,818,435)
Unrealized loss on investments available for sale	-	-	-	-	-	(86,540)	-	(86,540)
Shares issued under CEFF, net of issuance costs	1,103,919	11,039	2,611,497	-	-	-	-	2,622,536
Stock-based compensation expense	-	-	1,653,060	-	-	-	-	1,653,060
Issuance of restricted stock upon vesting	86,277	863	(863)	-	-	-	-	-
Shares issued in exchange for services	6,000	60	18,000					18,060
Balance at December 31, 2010	13,331,096	$ 140,914	$ 99,316,859	760,274	$ (3,076,670)	$ (18,367)	$ (100,938,261)	$ (4,575,525)

CELSION CORPORATION
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (continued)
YEARS ENDED DECEMBER 31, 2012, 2011 AND 2010

	Common Stock Outstanding			Treasury Stock				
	Shares	Amount	Additional Paid in Capital	Shares	Amount	Accum. Other Compr. Income	Accumulated Deficit	Total
Comprehensive loss:								
Net loss	-	-	-	-	-	-	(23,222,678)	(23,222,678
Unrealized loss on investments available for sale	-	-	-	-	-	(258,333)	-	(258,333
Valuation of common stock warrants in connection with issuance of 8% Series A Redeemable, Convertible Preferred Stock	-	-	2,030,000	-	-	-	-	2,030,000
Conversion of 8% Series A Redeemable, Convertible Preferred Stock	2,083,322	20,833	2,610,514	-	-	-	-	2,631,347
Shares issued under CEFF, net of issuance costs	1,340,514	13,405	3,102,682	-	-	-	-	3,116,087
Registered Direct and Private Placement Private Placement common stock offerings	16,129,373	161,294	44,543,243	-	-	-	-	44,704,537
Conversion of common stock warrants	156,866	1,569	426,768	-	-	-	-	428,337
Stock-based compensation expense	-	-	1,207,886	-	-	-	-	1,207,886

Issuance of restricted stock upon vesting	97,612	976	(976)	-	-	-	-	-
Issuance of common stock out of treasury	47,542	-	249	(24,241)	98,176	-	(48,366)	131,910
Balance at December 31, 2011	33,186,325	$ 338,991	$ 153,237,225	712,732	$ (2,884,125)	$ (276,700)	$ (124,221,823)	$ 26,193,568

CELSION CORPORATION
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (continued)
YEARS ENDED DECEMBER 31, 2012, 2011 AND 2010

	Common Stock Outstanding			Treasury Stock				
	Shares	Amount	Additional Paid in Capital	Shares	Amount	Accum. Other Compr. Income	Accumulated Deficit	Total
Comprehensive loss:								
Net loss	-	-	-	-	-	-	(26,568,382)	(26,568,382)
Unrealized gain on investments available for sale	-	-	-	-	-	150,093	-	150,093
Valuation of common stock warrants in connection with notes payable	-	-	73,654	-	-	-	-	73,654
Conversion of common stock warrants	3,804,868	38,048	10,126,844	-	-	-	-	10,164,892
Stock-based compensation expense	-	-	1,143,764	-	-	-	-	1,143,764
Issuance of restricted stock and option exercise	263,783	2,638	694,582	-	-	-	-	697,220
Issuance of common stock out of treasury	47,809	-	-	(47,809)	193,614	-	(86,565)	107,049
Balance at December 31, 2012	37,302,785	$ 379,677	$ 165,276,069	664,923	$ (2,690,511)	$ (126,607)	$ (150,876,770)	$ 11,961,858

See accompanying notes to the financial statements.

CELSION CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2012, 2011 AND 2010

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

Celsion Corporation, referred to herein as “Celsion”, “We”, or “the Company,” a Delaware corporation based in Lawrenceville, New Jersey, is an oncology drug development company focused on improving treatment for those suffering with difficult to treat forms of cancer. We are working to develop and commercialize more efficient, effective, targeted chemotherapeutic oncology drugs based on our proprietary heat-activated liposomal technology. Our lead product ThermoDox® is being tested in human clinical trials for the treatment of primary liver cancer, recurrent chest wall breast cancer and colorectal liver metastases.

Basis of Presentation

The accompanying financial statements of Celsion have been prepared in accordance with generally accepted accounting principles (“GAAP”) in the United States and include the accounts of the Company. The preparation of financial statements in conformity with GAAP requires management to make judgments, estimates, and assumptions that affect the amount reported in the Company’s financial statements and accompanying notes. Actual results could differ materially from these estimates.

Events and conditions arising subsequent to the most recent balance sheet date have been evaluated for their possible impact on the financial statements and accompanying notes. No events and conditions would give rise to any information that required accounting recognition or disclosure in the financial statements other than those arising in the ordinary course of business. See Note 16 for a summary of subsequent events.

Certain items in the prior period financial statements have been reclassified to conform to the current period presentation.

Revenue Recognition

At the inception of each collaborative agreement that includes milestone payments, the Company evaluates whether each milestone is substantive on the basis of the contingent nature of the milestone, specifically reviewing factors such as the scientific and other risks that must be overcome to achieve the milestone, as well as the level of effort and investment required. Milestones that are not considered substantive and that do not meet the separation criteria are accounted for as license payments and recognized on a straight-line basis over the remaining period of performance. Payments received or reasonably assured after performance obligations are met completely are recognized as earned.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand and investments purchased with an original maturity of three months or less. A portion of these funds are not covered by FDIC insurance.

Fair Value of Financial Instruments

The carrying values of financial instruments approximate their respective fair values.

Short Term Investments

The Company classifies its investments in marketable securities with readily determinable fair values as investments available-for-sale in accordance with Accounting Standards Codification (ASC) 320, Investments - Debt and Equity Securities . Available-for-sale securities consist of debt and equity securities not classified as trading securities or as securities to be held to maturity. The Company has classified all of its investments as available-for-sale. Unrealized holding gains and losses on available-for-sale securities are reported as a net amount in accumulated other comprehensive gain or loss in stockholders' equity until realized. Gains and losses on the sale of available-for-sale securities are determined using the specific identification method. The Company's short term investments consist of corporate bonds and government agency bonds.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. Depreciation is provided over the estimated useful lives of the related assets, ranging from three to seven years, using the straight-line method. Major renewals and improvements are capitalized at cost and ordinary repairs and maintenance are charged against operating expenses as incurred. Depreciation expense was approximately $281,500, $169,000 and $165,000 for years ended December 31, 2012, 2011 and 2010, respectively.

The Company reviews property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An asset is considered impaired if its carrying amount exceeds the future net undiscounted cash flows that the asset is expected to generate. If such asset is considered to be impaired, the impairment recognized is the amount by which the carrying amount of the asset, if any, exceeds its fair value determined using a discounted cash flow model.

Deposits

Deposits include real property security deposits and other deposits which are contractually required and of a long-term nature.

Patent Licenses

The Company has purchased several licenses for rights to patented technologies. Patent license costs of $73,125 have been capitalized and are amortized on a straight-line basis over the estimated life of the related patent. As of December 31, 2012, the total accumulated amortization expense is $45,000. The weighed-average amortization period for these assets is 10 years.

Comprehensive Income (Loss)

ASC 220, Comprehensive Income, establishes standards for the reporting and display of comprehensive income and its components in the Company’s consolidated financial statements. The objective of ASC 220 is to report a measure (comprehensive income (loss)) of all changes in equity of an enterprise that result from transactions and other economic events in a period other than transactions with owners.

Research and Development

Research and development costs are expensed as incurred. Equipment and facilities acquired for research and development activities that have alternative future uses are capitalized and charged to expense over their estimated useful lives.

Net Loss Per Common Share

Basic and diluted net income/(loss) per common share was computed by dividing net income/(loss) for the year by the weighted average number of shares of Common Stock outstanding, both basic and diluted, during each period. The impact of Common Stock equivalents has been excluded from the computation of diluted weighted average common shares outstanding in periods where there is a net loss, as their effect is anti-dilutive.

For the years ended December 31, 2012, 2011 and 2010, outstanding equity awards of 3,284,214, 3,168,511 and 2,245,046 shares, respectively, and the warrants outstanding to purchase 7,873,503, 11,598,617 and 1,009,076 shares, respectively, were considered anti-dilutive and therefore were not included in the calculation of diluted shares.

Income Taxes

Income taxes are accounted for under the asset and liability method. Under this 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 in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax asset and liabilities of a change in tax rates is recognized in results of operations in the period that the tax rate change occurs. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized. In accordance with ASC 740, Income Taxes, a tax position is recognized as a benefit only if it is “more likely than not” that the tax position taken would be sustained in a tax examination, presuming that a tax examination will occur. The Company recognizes interest and/or penalties related to income tax matters in the income tax expense category. The Company remains subject to examination for income tax returns for the years ending after 2008.

Stock-Based Compensation

Compensation costs for all stock-based awards is measured at fair value on the date of the grant and recognized over the service period for awards expected to vest. Such value is recognized as expense over the service period. The estimation of stock-based awards that will ultimately vest requires judgment, and to the extent actual results or updated estimates differ from the current estimates, such amounts will be recorded as cumulative adjustment in the period estimates are revised. We consider many factors when estimating expected forfeitures, including types of awards, employee class, and historical experience.

Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by FASB and are adopted by us as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued accounting pronouncements will not have a material impact on the Company's consolidated financial position, results of operations, and cash flows, or do not apply to our operations.

In May 2011, the FASB issued ASU 2011-04 on fair value disclosures. This guidance amends certain accounting and disclosure requirements related to fair value measurements. It is effective on a prospective basis for interim and annual reports beginning after December 15, 2011. Early application is not permitted. The Company is currently using ASU 2011-04 and the impact of its adoption is not material.

In June 2011, the FASB issued ASU 2011-05 on the presentation of comprehensive income, which amends current comprehensive guidance. This accounting update eliminates the option to present the components of other comprehensive income as part of stockholders' equity. Instead, the Company must report comprehensive income in either a single continuous statement of comprehensive income which contains two sections, net income and other comprehensive income, or in two separate but consecutive statements. ASU 2011-05 was initially to be effective for public companies during the interim and annual periods beginning after December 15, 2011 with early adoption permitted. However, changes in ASU 2011-05 that related to the presentation of reclassification adjustments to other comprehensive income were deferred in December 2011 upon the FASB's issuance of ASU 2011-12, which allows the FASB time to deliberate whether to present the effects of reclassifications out of accumulated other comprehensive income on the components of net other income on the face of the financial statements for all periods presented. While the FASB is considering the operational concerns about the presentation requirements for reclassification adjustments and the needs of financial statement users for additional information about reclassification adjustments, the Company is required to continue reporting reclassifications out of accumulated other comprehensive income consistent with the presentation requirements in effect before ASU 2011-05. All other requirements in ASU 2011-05 are not effected by ASU 2011-12 including the requirement to report comprehensive income either in a single continuous financial statement or in two separate but consecutive financial statements. Public entities should apply these requirements for fiscal years, and interim periods within those years, beginning after December 15, 2011. The adoption of ASU 2011-0 and ASU 2011-12 did not have an impact on the Company's consolidated financial position, results of operations or cash flows as it only required a change in the format of the current presentation. The Company presented this information in two separate but consecutive statements as previously discussed.

2. FINANCIAL CONDITION

Since inception, the Company has incurred substantial operating losses, principally from expenses associated with the Company's research and development programs, clinical trials conducted in connection with the Company's product candidates, and applications and submissions to the Food and Drug Administration. The Company believes these expenditures are essential for the commercialization of its technologies. As a result of these expenditures, as well as general and administrative expenses, the Company has an accumulated deficit of $150.9 million as of December 31,

2012.

The Company expects its operating losses to continue for the foreseeable future as it continues its product development efforts, and when it undertakes marketing and sales activities. The Company's ability to achieve profitability is dependent upon its ability to obtain governmental approvals, produce, and market and sell its new product candidates. There can be no assurance that the Company will be able to commercialize its technology successfully or that profitability will ever be achieved. The operating results of the Company have fluctuated significantly in the past. The Company expects that its operating results will fluctuate significantly in the future and will depend on a number of factors, many of which are outside the Company's control.

The Company will need substantial additional funding in order to complete the development, testing and commercialization of its oncology product candidates and we have made a significant commitment to heat-activated liposome research and development projects and it is our intention at least to maintain, and possibly increase, the pace and scope of these activities. The commitment to these new projects will require additional external funding, at least until the Company is able to generate sufficient cash flow from sale of one or more of its products to support its continued operations.

If adequate funding is not available, the Company may be required to delay, scale back or eliminate certain aspects of its operations or attempt to obtain funds through unfavorable arrangements with partners or others that may force it to relinquish rights to certain of its technologies, products or potential markets or that could impose onerous financial or other terms. Furthermore, if the Company cannot fund its ongoing development and other operating requirements, particularly those associated with its obligations to conduct clinical trials under its licensing agreements, it will be in breach of these licensing agreements and could therefore lose its license rights, which could have material adverse effects on its business. Management is continuing its efforts to obtain additional funds so that the Company can meet its obligations and sustain operations.

3. SHORT TERM INVESTMENTS AVAILABLE FOR SALE

Short term investments available for sale of $8,037,620 and $10,157,160 as of December 31, 2012 and 2011, respectively, consist of money market funds, commercial paper, corporate debt securities, and government agency debt securities. They are valued at estimated fair value, with unrealized gains and losses reported as a separate component of stockholders' equity in Accumulated Other Comprehensive Income.

Securities available for sale are evaluated periodically to determine whether a decline in their value is other than temporary. The term "other than temporary" is not intended to indicate a permanent decline in value. Rather, it means that the prospects for near term recovery of value are not necessarily favorable, or that there is a lack of evidence to support fair values equal to, or greater than, the carrying value of the security. Management reviews criteria such as the magnitude and duration of the decline, as well as the reasons for the decline, to predict whether the loss in value is other than temporary. Once a decline in value is determined to be other than temporary, the value of the security is reduced and a corresponding charge to earnings is recognized.

	December 31,	
Short-term investments available for sale, at fair value	2012	2011
Bonds – corporate issuances	$ 8,037,620	$ 10,157,160
Equity securities	–	–
Total	$ 8,037,620	$ 10,157,160

A summary of the cost, fair value and maturities of the Company's short-term investments is as follows:

	December 31, 2012		December 31, 2011	
	Cost	Fair Value	Cost	Fair Value
Short-term investments				
Bonds- corporate issuances	$ 8,164,227	$ 8,037,620	$ 10,325,487	$ 10,157,160
Equity securities	–	–	108,373	–
Total	$ 8,164,227	$ 8,037,620	$ 10,433,860	$ 10,157,160
Bond maturities				
Within 3 months	$ 3,053,740	$ 3,002,350	$ 5,128,560	$ 5,036,920

Between 3-12 months	5,110,487	5,035,270	5,196,927	5,120,240
Total	$ 8,164,227	$ 8,037,620	$ 10,325,487	$ 10,157,160

Investment income, which includes net realized losses on sales of available for sale securities and investment income interest and dividends, is summarized as follows:

	2012	2011	2010
Interest and dividend income	$ 429,194	$ 32,289	$ 53,247
Realized losses, net	(376,872)	–	(7,086)
	$ 52,322	$ 32,289	$ 46,161

In 2009, the Company recorded an equity investment of approximately $108,000 for stock received as settlement of a transition agreement the Company previously entered into. The $108,000 asset value reflected the estimated net realizable value of 903,112 shares of Medifocus Inc at the time of settlement. As of December 31, 2011, this entire amount had been reduced to $0 and was charged as an unrealized loss in other comprehensive loss. During the 4th quarter of 2012, the Company sold this stock for approximately $138,000, thereby recording a realized gain of approximately $30,000 in investment income and reversing the cumulative unrealized loss of $108,000 in other comprehensive loss.

The following table shows the Company's investment securities gross unrealized losses and fair value by investment category and length of time that individual securities have been in a continuous unrealized loss position at December 31, 2012 and 2011. The Company has reviewed individual securities to determine whether a decline in fair value below the amortizable cost basis is other than temporary.

December 31, 2012	Less than 12 months		12 months or Longer		Total	
Description of Securities	Fair Value	Gross Unrealized Holding Losses	Fair Value	Gross Unrealized Holding Losses	Fair Value	Gross Unrealized Holding (Losses) Gains
Available for Sale						
Bonds – corporate issuances	$ 8,037,620	$ (126,607)	$ –	$ –	$ 8,037,620	$ (126,607)
Equity securities	–	–	–	–	–	–
	$ 8,037,620	$ (126,607)	$ –	$ –	$ 8,037,620	$ (126,607)

December 31, 2011	Less than 12 months		12 months or Longer		Total	
Description of Securities	Fair Value	Gross Unrealized Holding Losses	Fair Value	Gross Unrealized Holding Losses	Fair Value	Gross Unrealized Holding Losses
Available for Sale						
Bonds – corporate issuances	$ 10,157,160	$ (168,327)	$ –	$ –	$ 10,157,160	$ (168,327)
Equity securities	–	(93,924)	–	(14,449)	–	(108,373)
	$ 10,157,160	$ (262,251)	$ –	$ (14,449)	$ 10,157,160	$ (276,700)

4. FAIR VALUES OF FINANCIAL INSTRUMENTS

FASB Accounting Standards Codification (ASC) Section 820, Fair Value Measurements and Disclosures, establishes a three tier level hierarchy for fair value measurements which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

Level 1: Quoted prices (unadjusted) or identical assets or liabilities in active markets that the entity has the ability to access as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3: Significant unobservable inputs that reflect a reporting entity's own assumptions that market participants would use in pricing an asset or liability.

The fair values of securities available for sale are determined by obtaining quoted prices on nationally recognized exchanges (Level 1 inputs) or matrix pricing, which is a mathematical technique widely used in the industry to value debt securities without relying exclusively on quoted prices for the specific securities but rather by relying on the securities' relationship to other benchmark quoted securities (Level 2 inputs). Assets and liabilities measured at fair value on a recurring basis are summarized below:

	Total Fair Value on the Balance Sheet	Quoted Prices In Active Markets For Identical Assets /Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
As of December 31, 2012				
Short-term investments available for sale				
Bonds – corporate issuances	$ 8,037,620	$ 8,037,620	$ –	$ –
As of December 31, 2011				
Short-term investments available for sale				
Bonds – corporate issuances	$ 10,157,160	$ 10,157,160	$ –	$ –
Equity Securities	–	–	–	–
Liabilities:				
As of December 31, 2012				
Common stock warrant liability	$ 4,283,932	$ –	$ –	$ 4,283,932
As of December 31, 2011				
Common stock warrant liability	$ 166,398	$ –	$ –	$ 166,398

The following is a summary the changes in the common stock equity securities and warrant liability for the years ended December 31, 2012, 2011 and 2010:

	Equity Securities	Warrant Liability
Beginning balance, January 1, 2010	$ 58,929	$ (821,891)
Unrealized (loss) gain included in other comprehensive (loss) income	(73,378)	–
Gain from valuation of common stock warrant liability included in net loss	–	573,760
Ending balance, December 31, 2010	(14,449)	(248,131)
Unrealized gain (loss) included in other comprehensive (loss) income	(93,924)	–
Gain from valuation of common stock warrant liability included in net loss	–	81,733
Ending balance, December 31, 2011	$ (108,373)	$ (166,398)
Unrealized gain (loss) included in other comprehensive (loss) income	108,373	–
Loss from valuation of common stock warrant liability included in net loss	–	(4,117,534)
Ending balance, December 31, 2012	$ –	$ (4,283,932)

5. PROPERTY, PLANT AND EQUIPMENT:

	December 31, 2012	December 31, 2011
Machinery and equipment (5-7 year life)	$ 1,618,673	$ 1,163,419
Furniture and fixtures (3-5 year life)	164,559	162,996
Leasehold improvements (5-7 year life)	257,350	99,777
	2,039,582	1,426,192
Less accumulated depreciation and amortization	(924,961)	(643,472)
Total	$ 1,114,621	$ 782,720

6. OTHER ACCRUED LIABILITIES

Other accrued liabilities at December 31, 2012 and 2011 include the following:

	December 31, 2012	December 31, 2011
Amounts due to Contract Research Organizations and other contractual agreements	$ 827,989	$ 1,234,875
Accrued payroll and related benefits	338,365	632,425
Accrued professional fees	37,400	137,400
Other	51,225	27,234
Total	$ 1,254,979	$ 2,031,934

7. NOTE PAYABLE

On June 27, 2012, the Company entered into a Loan and Security Agreement (the “Credit Agreement”) with Oxford Finance LLC (“Oxford”) and Horizon Technology Finance Corporation (“Horizon”). The Credit Agreement provides for a secured term loan of up to $10 million, with 50% of any loans to be funded by Oxford and 50% to be funded by Horizon. The aggregate loan amount may be advanced in two tranches of $5 million each. The first tranche (the “Term A Loan”) was made available to the Company on June 27, 2012 and the second tranche (the “Term B Loan”) was to be made available, if at all, during the period beginning on the date that the Company achieved positive data in its Phase III clinical trial of RFA and ThermoDox® (the HEAT Study) and ending on March 31, 2013. On January 31, 2013, the Company announced it did not meet the primary endpoint of the HEAT Study.

The Term A Loan is scheduled to mature on October 15, 2015. The proceeds of the Credit Agreement will be used to fund the Company’s working capital and general corporate purposes. The obligations under the Credit Agreement are secured by substantially all assets of the Company other than its intellectual property and certain other agreed-upon exclusions.

The Term A Loan bears interest at a fixed rate of 11.75%. However, for an initial period extending for the Term A Loan through May 1, 2013, the Company is only required to make interest payments. The Company was also obligated to pay other customary facility fees for a credit facility of this size and type.

The Credit Agreement contains customary covenants, including covenants that limit or restrict the Company’s ability to incur liens, incur indebtedness, make certain restricted payments, merge or consolidate and make dispositions of assets. Upon the occurrence of an event of default under the Credit Agreement, the lenders may cease making loans,

terminate the Credit Agreement, declare all amounts outstanding to be immediately due and payable and foreclose on or liquidate the Company's assets that comprise the lenders' collateral. The Credit Agreement specifies a number of events of default (some of which are subject to applicable grace or cure periods), including, among other things, non-payment defaults, covenant defaults, a material adverse change in the Company's business, cross-defaults to other materials indebtedness, bankruptcy and insolvency defaults and material judgment defaults. The Company is currently in compliance with these covenants.

As a fee in connection with the Credit Agreement, the Company issued warrants to Horizon and Oxford (the "Warrants") to purchase the number of shares of the Company's common stock equal to 3% of each loan amount divided by the exercise price, which was calculated as the average NASDAQ closing price of The Company common stock for the three days prior to the funding of the loan amount ($2.92 per share for the Term A Loan). This resulted in 51,370 warrant shares issued in connection with the Term A Loan. The Warrants issued in connection with the Term A Loan are immediately exercisable for cash or by net exercise and will expire seven years after their issuance, which is June 27, 2019.

The Company valued the Warrants using the Black-Scholes option pricing model and recorded $73,654 as deferred financing fees. In calculating the value of the warrants, the Company assumed a volatility rate of 74.3%, risk free interest rate of 1.10%, an expected life of 3.5 years, a stock price of $2.80 (closing price on date of the Warrant) and no expected forfeitures nor dividends. In connection with the Credit Agreement, the Company incurred cash expenses of $217,715 which were recorded as deferred financing fees. These deferred financing fees are being amortized as interest expense over the life of the loan. For the period since the Credit Agreement's inception through December 31, 2012, $43,215 in deferred financing fees were amortized as interest expense. Also, the Company paid $300,278 in interest expense on the Credit facility during this same period.

Following is a schedule of future principle payments due on the Credit Agreement:

	Credit Agreement
For the year ending December 31:	
2013	$ 1,349,744
2014	1,994,032
2015	1,656,224
	$ 5,000,000

In October 2009, the Company financed $288,200 of lab equipment through a capital lease. This lease obligation had thirty monthly payments of $11,654 through April 2012. During the first half of 2012, the Company has made principal and interest payments totaling $58,270. The lease obligation was paid in full during the second quarter of 2012.

In November 2011, the Company financed $144,448 of lab equipment through a capital lease. This lease obligation has thirty monthly payments of $5,651 through February 2014. During 2012, the Company made principal and interest payments totaling $67,817. The outstanding lease obligation is $71,602 as of December 31, 2012. See Note 15 to the financial statements.

8. INCOME TAXES

A reconciliation of the Company's statutory tax rate to the effective rate for the years ended December 31, 2012, 2011 and 2010 is as follows:

	2012	2011	2010
Federal statutory rate	34.0%	34.0%	34.0%
State taxes, net of federal tax benefit	5.9	4.6	5.4
Recapture of alternative minimum tax	–	–	–
Valuation allowance	(39.9)	(38.6)	(39.4)
Effective tax rate	–%	–%	–%

The components of the Company's deferred tax asset as of December 31, 2012 and 2011 are as follows:

In thousands	December 31, 2012	2011
Net operating loss carry forwards	$ 49,408	$ 40,104
Compensation expense related to employee stock options	2,817	2,285

Subtotal	52,225	42,389
Valuation allowance	(52,225)	(42,389)
Total deferred tax asset	$ -	$ -

The evaluation of the realizability of such deferred tax assets in future periods is made based upon a variety of factors that affect the Company's ability to generate future taxable income, such as intent and ability to sell assets and historical and projected operating performance. At this time, the Company has established a valuation reserve for all of its deferred tax assets. Such tax assets are available to be recognized and benefit future periods.

During 2012 and 2011 the Company performed analyses to determine if there were changes in ownership, as defined by Section 382 of the Internal Revenue Code that would limit its ability to utilize certain net operating loss and tax credit carryforwards. The Company determined that it experienced an ownership change, as defined by Section 382, in connection with its registered direct and private placement offerings on July 25, 2011. As a result, the utilization of the Company's federal tax net operating loss carryforwards generated prior to the ownership change is limited. As of December 31, 2012, the Company has net operating loss carryforwards for U.S. federal and state tax purposes of approximately $129 million, before excluding net operating losses that have been limited as a result of Section 382 limitations. The annual limitation due to Section 382 for net operating loss carry forward utilization is approximately $4.9 million per year for approximately $96 million in net operating loss carryforwards existing at the date of the ownership change. The utilization of these net operating loss carryforwards may be further limited if the Company experiences future ownership changes as defined in Section 382 of the Internal Revenue Code.

Approximate Amount Of Unused Operating Loss Carry Forwards ($000s)	Expiration During Year Ended
$ 4,843	2022
2,293	2023
15,647	2024
8,168	2025
7,361	2026
11,905	2028
18,547	2029
18,145	2030
21,386	2031
20,587	2032
$ 128,882	

9. STOCKHOLDERS’ EQUITY

In August 2012, the Company filed with the Securities and Exchange Commission a $75 million shelf registration statement on Form S-3 that allowed the Company to issue any combination of common stock, preferred stock or warrants to purchase common stock or preferred stock. This shelf registration was declared effective on September 14, 2012. The Company did not issue any stock under this shelf registration statement during the remainder of 2012.

During 2012 and 2011, the Company received gross proceeds of approximately $10.2 million and $0.4 million, respectively, from the exercise of warrants to purchase 3,804,868 and 156,866 shares of common stock, respectively.

In 2009, the Company filed with the Securities and Exchange Commission a $50 million shelf registration statement on Form S-3 that allowed the Company to issue any combination of common stock, preferred stock or warrants to purchase common stock or preferred stock. This shelf registration was declared effective on April 17, 2009. As of July 25, 2011, this shelf registration statement had been fully utilized.

January 2011 Preferred Stock Offering

In January 2011, the Company entered into a definitive securities purchase agreement with a select group of institutional investors, including certain officers and directors of the Company, to sell 5,000 shares of 8% redeemable convertible preferred stock with a stated value of $1,000 and warrants to purchase up to 2,083,333 shares of common

stock in a registered direct offering. The convertible preferred stock and warrants were sold in units (the "Units"), with each Unit consisting of one share of convertible preferred stock and a warrant to purchase up to 416.6666 shares of common stock at an exercise price of $3.25 per share of common stock. The Units were offered and sold to unaffiliated third party investors at a negotiated purchase price of $1,000 per Unit and to officers and directors at an at-the-market price of $1,197.92 per Unit in accordance with NASDAQ Stock Market Rules. Each share of preferred stock is convertible into shares of common stock at an initial conversion price of $2.40 per share, subject to adjustment in the event of stock splits, recapitalizations or reorganizations that affect all holders of common stock equally. Concurrent with the issuance and sale of the Units, the Company issued warrants (the “Placement Agent Warrants”) to purchase up to 350 shares of Preferred Stock at an exercise price of $1,000 per whole share of Preferred Stock to certain affiliates of Dominick and Dominick LLC, as the placement agent.

The Company received gross proceeds from the offering of approximately $5.1 million, before deducting placement agents' fees and offering expenses. The preferred shares are convertible into shares of common stock by the holders thereof at any time and have a mandatory redemption date of January 14, 2013 at a stated redemption value of $1,000 per preferred share. The convertible preferred shares are also subject to mandatory conversion upon the occurrence of certain events, including the sale of Common Stock in one or more offerings for not less than $4.00 per share and aggregate gross proceeds of $10 million, the achievement of a twenty day trading average of our Common Stock above $6.00 per share, or the receipt of an aggregate at least $4,000,000 as actual, or advanced payment of future, license, milestone or royalty payments from a strategic, licensing or development partner.

Until the preferred shares were redeemed, the issued and outstanding shares accrued dividends at a rate of 8% per annum. Dividends on the convertible preferred shares were payable on a quarterly basis from the original issue date commencing on April 15, 2011 and are payable only in cash.

The Units were sold pursuant to the Company's shelf registration statement on Form S-3 (Registration No. 333-158402), which was declared effective by the SEC on April 17, 2009, as supplemented by prospectus supplements dated January 12, 2011 and January 13, 2011 filed with the Securities and Exchange Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended. In connection with the offering, placement agent fees and other offering expenses totaling $675,918 were capitalized as deferred financing fees and were amortized as interest costs over the period from inception until the January 14, 2013 mandatory redemption date. When the preferred shares were converted, the unamortized portion related to such shares was recorded as a cost of capital. Deferred financing fees of $77,853 were amortized during the nine months ended September 30, 2011. During the period from the date of the offering and through September 30, 2011, all 5,000 preferred shares were converted into 2,083,322 shares of the Company's common stock. In connection with these conversions, deferred financing fees of $598,065 were reclassified as a cost of capital.

June 2, 2011 Private Placement Offering

On June 2, 2011, the Company completed the issuance and sale in a private placement transaction with institutional investors, as well as certain officers and directors of the Company, of 3,218,612 shares of common stock (the "Common Stock") and warrants (the "Warrants") to purchase up to 3,218,612 shares of common stock. The Common Stock and Warrants were sold in units (the "Units"), with each Unit consisting of one share of Common Stock and a Warrant to purchase one share of common stock. Units sold to unaffiliated institutional investors were sold at a negotiated purchase price of $2.65 per Unit and to officers and directors at $2.895 per Unit, the latter representing the consolidated closing bid price per share of Common Stock plus a warrant premium of $0.125 per Unit. The Warrants are immediately exercisable and have a term of exercise of seventy-eight months from the date of issuance and an exercise price of $2.77 per share. The Company received gross proceeds from the offering of approximately $8.6 million before deducting estimated offering expenses.

Concurrent with the issuance and sale of the Units, Common Stock and Warrants pursuant to the Purchase Agreement, the Company also entered into a Registration Rights Agreement with the Investors (the "Registration Rights Agreement") that required the Company to file a resale registration statement with the Securities and Exchange Commission covering the resale by the Investors of the Common Stock and the shares of common stock issuable upon exercise of the Warrants. These Units were filed pursuant to Rule 424(b)(3) under the Securities Act of 1933 on the Prospectus for Registration Statement No. 333-174960 and was declared effective on June 24, 2011.

July 6, 2011 Registered Direct Offering

On July 6, 2011, the Company completed the issuance and sale in a registered offering of 2,095,560 shares of our common stock and warrants to purchase up to 628,668 shares of our common stock to institutional investors. The

securities were sold in units at a price of $3.1675 per unit, with each unit consisting of one share of common stock and a warrant to purchase 0.3 shares of common stock, for an aggregate offering price of $6,637,688 (the “Offering”). Net proceeds from the offering were approximately $6 million.

Each Warrant to purchase shares of Common Stock will have an exercise price of $3.13 per share, for total potential additional proceeds to the Company of up to approximately $2 million upon exercise of the Warrants. The Warrants are immediately exercisable for cash or, solely in the absence of an effective registration statement, by net exercise and will expire five years from the date of issuance.

The offer and sale of the Common Stock and Warrants (and the shares of Common Stock issuable upon exercise of the warrants) are registered under the Securities Act of 1933 (the "Securities Act"), as amended, on a registration statement on Form S-3 (File No. 333-158402).

July 25, 2011 Registered Direct and Private Placement Offerings

On July 25, 2011, the Company completed a registered offering of 3,047,682 shares of its common stock and warrants (the "RD Warrants") to purchase up to 914,305 shares of its common stock. The common stock and the warrants were sold in units at a price of $4.2575 per unit, with each unit consisting of one share of the Company's common stock and a warrant to purchase 0.30 shares of the Company's common stock, for an aggregate registered offering price of $12,975,506 (the "Registered Offering").

The offer and sale of the Company's common stock issued in the Registered Offering and the shares of common stock issuable upon exercise of the warrants issued in the Registered Offering are registered under the Securities Act of 1933, as amended (the "Securities Act"), on a registration statement on Form S-3 (File No. 333-158402), as supplemented and amended by the prospectus supplement filed with the Securities and Exchange Commission on July 25, 2011.

On July 20, 2011, the Company entered into a Purchase Agreement (the "Private Placement Purchase Agreement" and, together with the Registered Direct Purchase Agreement, the "Agreements") under which the Company agreed to enter into a private placement with other accredited institutional investors, a member of the Company's Board of Directors, and an accredited institutional investor affiliated another member of the Company's Board of Directors (collectively, the "Private Offering Purchasers"). Pursuant to the Private Placement Purchase Agreement, the Company issued 1,281,031 shares of its common stock and warrants (the "Private Placement Warrants") to purchase up to 512,412 shares of its common stock. The Private Placement Purchase Agreement provided that the securities will be sold in units at a price of $4.27 per unit, with each unit consisting of one share of the Company's common stock and a warrant to purchase 0.40 shares of the Company's common stock, for an aggregate private offering price of $5,469,998 (the "Private Offering," collectively with the Registered Offering, the "Offerings").

In the Offerings, each warrant to purchase shares of the Company's common stock will have an exercise price of $4.22 per share, for total potential additional proceeds to the Company of up to approximately $6 million upon exercise of the warrants. The warrants in the Offerings are immediately exercisable for cash or, solely in the absence of an effective registration statement, by net exercise and will expire five years from the date of issuance.

Concurrent with the issuance and sale of the Private Offering common stock and warrants, the Company also entered into a Registration Rights Agreement with the Private Offering Purchasers (the "Registration Rights Agreement") that requires the Company to file a registration statement within 30 days of the closing date on July 25, 2011 with the Securities and Exchange Commission covering the resale by the Private Offering Purchasers of the common stock issued in the Private Offering and the shares of common stock issuable upon exercise of the warrants issued in the Private Offering. These Units were filed pursuant to Rule 424(b)(3) under the Securities Act of 1933 on the Prospectus for Registration Statement No. 333-176486 and was declared effective on September 22, 2011.

The purchase and issuance of securities in the Offerings were completed on July 25, 2011. Net proceeds from the Registered Offering and the Private Placement Offering aggregated approximately $17 million.

December 6, 2011 Private Placement Offering

On December 6, 2011, the Company completed the issuance and sale in a private placement transaction with institutional investors, as well as certain directors of the Company, of 6,486,488 shares of common stock and warrants to purchase up to 3,243,244 shares of common stock. The common stock and warrants were sold in units, with each unit consisting of one share of common stock and a half of a warrant to purchase one share of common stock. Units sold to unaffiliated institutional investors were sold at a negotiated purchase price of $2.3125 per unit representing the consolidated closing bid price per share of common stock plus a warrant premium of $0.125 per unit. The Company received gross proceeds from the offering of approximately $15.0 million before deducting estimated offering expenses.

In this offering, each warrant to purchase shares of the Company's common stock will have an exercise price of $2.36 per share, for total potential additional proceeds to the Company of up to approximately $7.5 million upon exercise of the warrants. The warrants in the Offering are immediately exercisable for cash or, solely in the absence of an effective registration statement, by net exercise and will expire five years from the date of issuance.

Concurrent with the issuance and sale of the Offering common stock and warrants, the Company also entered into a Registration Rights Agreement with the Purchasers (the "Registration Rights Agreement") that requires the Company to file a registration statement with the Securities and Exchange Commission covering the resale by the Purchasers of the common stock issued in the Offering and the shares of common stock issuable upon exercise of the warrants issued in the Offering. These units were filed pursuant to Rule 424(b)(3) under the Securities Act of 1933 on the Prospectus for Registration Statement No. 333- 178679 and was declared effective on February 8, 2012.

Committed Equity Financing Facility (CEFF)

On June 17, 2010, we entered into a Committed Equity Financing Facility (CEFF) with Small Cap Biotech Value Ltd. (SCBV). The CEFF provides that, upon the terms and subject to the conditions set forth therein, SCBV is committed to purchase up to $15.0 million worth of our shares of common stock over the 24-month term of the CEFF under certain specified conditions and limitations, provided that in no event may we sell under the CEFF more than 2,404,434 shares of common stock, which is equal to one share less than 20% of our outstanding shares of common stock on June 17, 2010, the closing date of the CEFF, less the number of shares of common stock we issued to SCBV on the closing date as Commitment Shares (described below). Furthermore, in no event shall SCBV purchase any shares of our common stock which, when aggregated with all other shares of our common stock then beneficially owned by SCBV, would result in the beneficial ownership by SCBV of more than 9.9% of the then outstanding shares of our common stock. These maximum share and beneficial ownership limitations may not be waived by the parties.

In partial consideration for SCBV's execution and delivery of the CEFF, we issued to SCBV 40,000 shares of our common stock (the "Commitment Shares"). The issuance of the Commitment Shares, together with all other shares of common stock issuable to SCBV pursuant to the terms of the CEFF, is exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to the exemption for transactions by an issuer not involving any public offering under Section 4(2) and Regulation D under the Securities Act.

During 2011, the Company completed the three draws and sales of 1,340,514 shares of the Company's common stock to SCBV under the CEFF resulting in approximately $3.4 million in gross proceeds.

In connection with the CEFF, the Company capitalized and deferred approximately $332,000 of fees and expenses in 2010. A portion of these amounts were amortized each time the Company completed a draw under the CEFF. During 2011, $274,806 of these expenses was amortized in connection with the three draws in 2011.

The proceeds from the CEFF draws were used for general corporate purposes, including the funding of the Company's clinical development pipeline of cancer drugs. SCBV is an accredited investor as such term is defined in Rule 501 of Regulation D of the Securities Act of 1933, as amended (the "Securities Act"), and all sales of the Company's common stock to SCBV pursuant to the CEFF were exempt from registration pursuant to Section 4(2) of the Securities Act and Rule 506 of Regulation D of the Securities Act. The Company has registered the resale of the shares of common stock issued to SCBV pursuant to the CEFF under the Securities Act on a registration statement on Form S-1.

Availability under the CEFF was exhausted during the second quarter of 2011. Also, in connection with equity offerings in the second quarter of 2011, the Company agreed to suspend the use of the CEFF and expensed the unamortized deferred financing fees of $274,806 in the 2011.

10. STOCK BASED COMPENSATION

Employee Stock Options

The Company has long-term compensation plans that permit the granting of incentive awards in the form of stock options. Generally, the terms of these plans require that the exercise price of the options may not be less than the fair market value of Celsion's Common Stock on the date the options are granted. Options generally vest over various time frames or upon milestone accomplishments. Some vest immediately. Others vest over a period between one and five years. The options generally expire ten years from the date of the grant.

2001 Stock Option Plan

In 2001, the Board of Directors adopted a stock plan for directors, officers and employees (the "2001 Plan") under which 666,667 shares were reserved for future issuance. The purpose of the 2001 Plan was to promote long-term growth and profitability of Celsion by providing key people with incentives to improve stockholder value and contribute to the growth and financial success of Celsion, and to enable the company to attract, retain and reward the best available persons for positions of substantial responsibility.

2004 Stock Incentive Plan

In 2004, the Board of Directors adopted a stock plan for directors, officers and employees (the "2004 Plan") under which 666,667 shares were reserved for future issuance. The plan provides for stock instruments to be issued enabling the holder thereof to acquire Common stock of the Company at prices determined by the Company's Board of Directors. The purpose of the 2004 Plan was to promote the long-term growth and financial success of the Company and enable the Company to attract, retain and reward the best available persons for positions of substantial responsibility. The 2004 Plan permitted the granting of awards in the form of incentive stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock, and performance awards, or in any combination of the foregoing. The 2004 Plan terminates in 2014, 10 years from the date of the Plan's adoption by the Company's stockholders.

Any options forfeited or terminated under the 2001 Plan and 2004 Plan are rolled into the 2007 Stock Incentive Plan for future issuance. At December 31, 2012, 616,667 and 515,871 of available options from these two plans respectively are available for future issuance under the 2007 Stock Incentive Plan.

2007 Stock Incentive Plan

On June 13, 2007, the Company adopted the Celsion Corporation 2007 Stock Incentive Plan (the "2007 Plan") under which 1,000,000 shares was available for issuance. The purpose of the 2007 Plan is to promote the long-term growth and profitability of the Company by providing incentives to improve stockholder value and enable the Company to attract, retain and reward the best available persons for positions of substantial responsibility. The 2007 Plan permits the granting of awards in the form of incentive stock options, nonqualified stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock, and performance awards, or in any combination of the foregoing. At the Annual Meetings of Stockholders of Celsion held on June 25, 2010 and June 7, 2012, the stockholders approved amendments to the Plan. The only material difference between the existing Plan and the amended Plan was the number of shares of common stock available for issuance under the amended Plan which was increased by 1,000,000 to a total of 2,000,000 shares in 2010 and by 2,250,000 to a total of 4,250,000 shares in 2012.

The Company has issued stock options and warrants to employees, directors, vendors and debt holders. Options and warrants are generally granted at market value on the date of the grant.

Incentive stock options may be granted to purchase shares of Common Stock at a price not less than 100% of the fair market value of the underlying shares on the date of grant, provided that the exercise price of any incentive option granted to an eligible employee owning more than 10% of the outstanding stock must be at least 110% of the such fair market value on the date of grant. Only officers and key employees may receive incentive stock options; all other qualified participants may receive non-qualified stock options.

Option awards vest upon terms determined by the Board of Directors. Restricted stock awards, performance stock awards and stock options are subject to accelerated vesting in the event of a change of control. The Company issues new shares to satisfy its obligations from the exercise of options.

During the year ended December 31, 2012 and 2011, 668,494 and 246,667 equity awards, respectively, were issued under the 2007 Plan. During 2012 and 2011, a total of 297,091 and 256,002 options were canceled or expired under the plans collectively. During 2012, options to purchase 214,091 shares of the Company's common stock were exercised and the Company received approximately $0.7 million in net proceeds.

As of December 31, 2012, for all stock options plans there were a total of 3,284,214 shares reserved and there were a total of 2,153,974 shares available for future issuance.

Total compensation cost charged related to employee stock options and non-vested restricted stock awards amounted to 1.1 million, $1.2 million and $1.7 million for the years ended December 31, 2012, 2011 and 2010, respectively. No compensation cost related to share-based payments arrangements was capitalized as part of the cost of any asset at these same periods.

As of December 31, 2012, there was $1.4 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements. That cost is expected to be recognized over a weighted-average period of 2.0 years. The weighted average grant-date fair values of the equity awards granted during the years ended December 31, 2012 and 2011 were $1.57 and $1.81, respectively.

Equity Awards Issued to Consultants for Services

The Company periodically issues equity awards to consultants in exchange for services provided. The fair value of options granted is measured in accordance with ASC 718, Compensation – Stock Compensation, using the Black-Scholes option pricing model and recorded as an expense in the period in which such services are received. Generally, the terms of these plans require that the exercise price of such awards may not be less than the fair market value of the Company's Common Stock on the date the equity awards are granted. Consultant equity awards generally vest over various time frames or upon milestone accomplishments. Some vest immediately upon issuance. The equity awards generally expire within 10 years from the date of grant. There were 21,241, 5,000 and 22,500 awards issued to consultants during the years ended December 31, 2012, 2011 and 2010, respectively.

A summary of stock option awards as of December 31, 2012 and changes during the three years ended December 31, 2012, is presented below:

Stock Options	Number Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2010	1,641,979	$3.96		
Granted	656,500	3.04		
Exercised	–	–		
Canceled or expired	(130,833)	3.03		
Outstanding at December 31, 2010	2,167,646	3.96		
Granted	1,195,667	3.67		
Exercised	–	–		
Canceled or expired	(250,169)	3.23		
Outstanding at December 31, 2011	3,113,144	3.75		
Granted	655,251	2.24		
Exercised	(214,091)	3.26		
Canceled or expired	(289,424)	6.54		
Outstanding at December 31, 2012	3,264,880	$3.25	6.7	$16,168,796
Exercisable at December 31, 2012	1,910,025	$3.76	5.4	$8,487,064

A summary of stock options outstanding at December 31, 2012 by price range is as follows:

	Options Outstanding			Options Exercisable		
Range of Exercise Prices	Number	Weighted Average Remaining Contractual Term (in years)	Weighted Average Exercise Price	Number	Weighted Average Remaining Contractual Term (in years)	Weighted Average Exercise Price
$ 1.00 - $3.00	2,279,918	7.3	$ 2.47	1,108,562	5.9	$ 2.59
$ 3.01 - $5.00	547,704	6.3	3.85	364,205	5.3	3.93
$ 5.01 - $7.00	388,631	4.4	5.77	388,631	4.4	5.77
$ 7.01 - $10.00	22,167	2.0	8.06	22,167	2.0	8.06
$ Above $10.00	26,460	1.2	17.04	26,460	1.2	17.04