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 July 31, 2012

OR

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

For the transition period from to

Commission file number 000-54318

ONCOSEC MEDICAL INCORPORATED

(Exact name of registrant as specified in its charter)

Nevada	**98-0573252**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

4690 Executive Drive, Suite 250
San Diego, CA 92121
(Address of Principal Executive Offices)(Zip Code)

(855) 662-6732
(Registrant's telephone number, including area code)

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

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

Common Stock, par value $0.0001 per share
(Title of Class)

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

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

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§229.405 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 x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) 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. x

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

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

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

The aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant as of January 31, 2012 totaled approximately $31,000,000 based on the closing price of $0.76. As of October 12, 2012, there were 87,856,000 shares of the Company's common stock ($0.0001 par value) outstanding.

Table of Contents

TABLE OF CONTENTS

OncoSec Medical Incorporated has filed applications to register the following trademarks: ImmunoPulse and NeoPulse. Other registered trademarks used in this Annual Report are the property of their respective owners.

Table of Contents

PART I

ITEM 1. BUSINESS

The following discussion should be read in conjunction with our consolidated financial statements and the related notes and other financial information appearing elsewhere in this Form 10-K. This report contains forward-looking statements that involve risks, uncertainties and assumptions. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "expects", "plans", "anticipates", "believes", "estimates", "predicts", "potential" or "continue" or the negative of these terms or other comparable terminology. All statements made in this Annual Report on Form 10-K other than statements of historical fact could be deemed forward-looking statements.

By their nature, forward-looking statements speak only as of the date they are made, are neither statements of historical fact nor guarantees of future performance and are subject to risks, uncertainties, assumptions and changes in circumstances that are difficult to predict or quantify. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks identified in the section entitled "Risk Factors" in Part I, Item IA of this Annual Report, and similar discussions in our other SEC filings. If such risks or uncertainties materialize or such assumptions prove incorrect, our results could differ materially from those expressed or implied by such forward-looking statements and assumptions. Risks that could cause actual results to differ from those contained in the forward-looking statements include but are not limited to risks related to: uncertainties inherent in pre-clinical studies and clinical trials; our need to raise additional capital and our ability to obtain financing; general economic and business conditions; our ability to continue as a going concern; our limited operating history; our ability to recruit and retain qualified personnel; our ability to manage

future growth; our ability to develop our planned products; and our ability to protect our intellectual property.

You should not place undue reliance on forward-looking statements. Unless required to do so by law, we do not intend to update or revise any forward-looking statement, because of new information or future developments or otherwise.

As used in this Annual Report on Form 10-K and unless otherwise indicated, the terms "the Company", "we", "us" and "our" refer to OncoSec Medical Incorporated.

Overview

We are an emerging drug-medical device and therapeutic company focused on designing, developing and commercializing innovative and proprietary medical approaches for the treatment of solid tumors that have unmet medical needs or where currently approved therapies are inadequate based on their efficacy or side-effects. Our company was incorporated under the laws of Nevada on February 8, 2008 as Netventory Solutions Inc. Initially, we provided online inventory services to small and medium sized companies. On March 1, 2011, we changed our name from "Netventory Solutions, Inc." to "OncoSec Medical Incorporated". In March 2011, we acquired from Inovio Pharmaceuticals, Inc. ("Inovio") certain assets related to the use of drug-medical device combination products for the treatment of various cancers. With this acquisition, we have abandoned our efforts in the online inventory services industry and are focusing our efforts in the biomedical industry.

Our Strategy

The assets we acquired from Inovio include intellectual property relating to certain delivery technologies, which we now refer to as the OncoSec Medical System ("OMS"), a therapeutic approach which is based on the use of an electroporation delivery device in combination with an approved chemotherapeutic drug or a DNA-based cytokine to treat solid tumors. These two different approaches represent unique therapeutic modalities, ImmunoPulse (formerly OMS ElectroImmunotherapy) and NeoPulse (formerly OMS ElectroChemotherapy). Our ImmunoPulse approach is based on the use of electroporation to enhance the local delivery of DNA plasmids which, upon uptake into cells, direct the production of immunostimulatory cytokines to generate a local, regional and systemic immune response for the treatment of various cutaneous cancers. NeoPulse utilizes our electroporation technologies for the local delivery of the chemotherapeutic drug bleomycin to treat solid tumors. OMS consists of an electrical pulse generator console and various disposable applicators specific to the individual tumor size, type and location and is designed to increase the permeability of cancer cell membranes and, as a result, increases the intracellular delivery of selected therapeutic agents. Using either ImmunoPulse, a DNA-based immunotherapy or NeoPulse, a therapy to treat solid tumors, our mission is to enable people with cancer to live longer with a better quality of life than otherwise possible or available with existing therapies.

Cancer is a disease of uncontrolled cell growth. The primary front line treatment of solid tumors involves surgical resection and/or radiation to eliminate or debulk tumor growth prior to initiating systemic therapy with chemotherapeutic agents. In the case of invasive surgical procedures, surgeons will often remove or resect an area outside of the obvious tumor mass to ensure that they have

Table of Contents

excised all of the cancerous tissue because of the difficulty in determining the border, or margin, between healthy and diseased tissue. This treatment can result in the loss of function and appearance of the surrounding tissues, significantly reducing the patient's quality of life. Although there have been recent advances in non-surgical forms of tumor ablation, such as cryoablation, stereotactic, microwave and high frequency radio ablation therapy, we believe they fail to fully satisfy the clinical need to preserve normal healthy tissue. Given the desire for improved outcomes in the surgical resection of solid tumors, we believe that there can be significant demand for our NeoPulse technology from patients, dermatologists and surgical oncologists.

The NeoPulse approach has been developed up to Phase III clinical trials in the United States for the treatment of recurrent head and neck cancer and Phase I/II for the treatment of recurrent breast cancer. NeoPulse has potential application in a wide range of solid tumors, including basal cell carcinoma, squamous cell carcinoma, melanoma, breast, prostate, and pancreatic cancers. In addition, Phase IV pre-marketing studies to support the commercialization of NeoPulse in Europe have also been performed for the treatment of primary and recurrent head and neck cancers and cutaneous skin cancers.

When detected early and still confined to a single location, cancer may be cured by surgery or irradiation and potentially, by promising new technologies such as NeoPulse. However, neither surgery nor irradiation can cure cancer that has spread throughout the body. Although chemotherapy can sometimes effectively treat cancer that has spread throughout the body, a number of non-cancerous cells, such as bone marrow cells, are also highly susceptible to chemotherapy. As a result, chemotherapy often has fairly significant side effects. In addition, it is common to see cancer return after apparently successful treatment by each of these means.

Immunotherapy, a process which uses the patient's own immune system to treat cancer, may have advantages over surgery, irradiation, and chemotherapy. Many cancers appear to have developed the ability to "hide" from the immune system. A treatment that can augment the immune response against tumor cells by making the cancer more "visible" to the immune system would likely represent a significant improvement in cancer therapy. Immune-enhancing proteins such as interleukin-2, or IL-2, and interferon-alpha, or IFN- α, have shown encouraging results. However, these agents often require frequent doses that may result in severe side effects.

Two new drugs for metastatic melanoma were approved in 2011, both on the basis of increased survival. Yervoy ®, a monoclonal antibody marketed by Bristol-Myers Squibb Co., increases the effectiveness of T-cells that can seek out and destroy melanoma cells. Zelboraf ®, a B-Raf inhibitor marketed by Roche and Daiichi Sankyo, interrupts a key process in melanoma growth in patients with a particular melanoma mutation. Both drugs are associated with significant side effects, and neither is considered a cure for melanoma.

Our current ImmunoPulse clinical-stage approach consists of directly injecting solid tumors with a DNA plasmid which, upon uptake into cells, direct the production of the encoded immunostimulatory cytokine to generate a local, regional and systemic immune response. The ease of manufacture, convenience, and ability to repeat administration may offer advantages over current modalities of therapy. In addition, cancer therapies using non-viral DNA delivery may offer an added margin of safety compared with viral-based delivery, as no viral particles or other potentially infectious agents are contained in the formulation. A Phase I clinical trial using our ImmunoPulse approach has been completed and three Phase II clinical trials focused on melanoma, Merkel cell carcinoma and cutaneous T-cell lymphoma have been initiated.

Our business model is based on a commercialization strategy that leverages previous in-depth clinical experiences, previous approvals for the electroporation-based devices and late stage clinical studies in the United States and Europe. We may plan to seek regulatory approvals to initiate specific studies in target markets to collect clinical, reimbursement, and pharmacoeconomic data in order to advance our commercialization strategy. Our clinical development strategy includes completing the necessary additional clinical trials in accordance with FDA guidelines for cutaneous cancers including select rare cancers that have limited, adverse or no therapeutic alternatives. Our strategy also includes expanding the applications of our technologies through strategic collaborations or evaluation of other opportunities such as in-licensing and strategic acquisitions. We may collaborate with major pharmaceutical and biotechnology companies and government agencies, providing us access to complementary technologies or greater resources. These business activities are intended to provide us with mutually beneficial opportunities to expand or advance our product pipeline and serve significant unmet medical needs. We may license our intellectual property to other companies to leverage our technologies for applications that may not be appropriate for our independent product development.

Asset Acquisition

On March 14, 2011, we entered into an Asset Purchase Agreement with Inovio to acquire certain assets from Inovio related to certain non-DNA vaccine technology and intellectual property relating to selective electrochemical tumor ablation (formerly referred to as "SECTA," and which we now refer to as the OncoSec Medical System, or "OMS"). The asset purchase was completed on March 24, 2011. On September 28, 2011 and March 24, 2012, we entered into amendments to the Asset Purchase Agreement to

Table of Contents

amend certain of the payment terms. We acquired the following assets from Inovio in connection with this transaction: certain equipment, machinery, inventory and other tangible assets of Inovio related to the OMS technology; certain engineering and quality documentation related to the OMS technology; the assignment of certain contracts; and certain of Inovio's patents, including patent applications, and trademarks, and all goodwill associated therewith related to the OMS technology. We did not assume any of the liabilities of Inovio except with respect to all liabilities under the assigned contracts and assigned or acquired intellectual property arising after the closing of the acquisition.

Pursuant to a cross-license agreement with Inovio entered into in connection with the closing of the asset acquisition, we granted to Inovio a fully paid-up, exclusive, worldwide license to certain of the OMS technology patents in the field of gene or nucleic acids, outside of those encoding cytokines, delivered by electroporation. Inovio also granted us a non-exclusive, worldwide license to certain non-OMS technology patents in the OMS field for the following consideration: a fee for any sublicense of the Inovio technology; a royalty on net sales of any business we develop with the Inovio technology; and repayment of Inovio for any amount Inovio pays to the licensor of the Inovio technology that is a direct result of the license.

We are required to pay Inovio $3,000,000 in scheduled payments over a period of two years from the closing date and a royalty on commercial product sales related to the OMS technology. As we describe elsewhere in this filing, on March 18, 2011, we closed a private placement of 1,456,000 units at a purchase price of $0.75 per unit for gross proceeds of $1,092,000. Each unit consists of one share of our common stock and one share purchase warrant entitling the holder to acquire one share of common stock at a price of $1.00 per share for a period of five years from the closing of such private placement. We used $250,000 of the proceeds as the first payment to Inovio pursuant to the Asset Purchase Agreement. On September 28, 2011, we entered into a First Amendment to Asset Purchase Agreement (the "First Amendment"). The First Amendment modified the payment terms of the $750,000 due to Inovio by September 24, 2011, instead requiring us to make a payment of $100,000 to Inovio on September 30, 2011, with the remaining $650,000 to be paid to Inovio at the earlier of (a) 30 days following the receipt by us of aggregate net proceeds of more than $5,000,000 from one or more financings occurring on or after September 30, 2011, or (b) March 31, 2012. On March 24, 2012, we entered into a Second Amendment to Asset Purchase Agreement (the "Second Amendment"). The Second Amendment further modified the payment terms for the $1,150,000 scheduled payments due to Inovio in March 2012 by requiring us to make a payment of $150,000 on March 31, 2012, with the remaining $1,000,000 to be paid to Inovio on December 31, 2013. In consideration for the amendments, we issued to Inovio warrants to purchase 1,000,000 and 3,000,000 shares of our common stock, respectively. The warrants have an exercise price of $1.20 and $1.00 per share, respectively, are exercisable immediately upon issuance and have an exercise term of five years. The warrants also contain a mandatory exercise provision allowing us to request the exercise of the warrant in whole provided that our daily market price (as defined in the warrant) is equal to or greater than $2.40 for twenty consecutive trading days. Payment of the remaining amounts owed to Inovio are due on the following schedule: $500,000 eighteen months from the closing date, September 24, 2012; $1,000,000 on the second anniversary of the closing date, March 24, 2013; and $1,000,000 on December 31, 2013.

The OncoSec Medical System

Most drugs and DNA-based therapeutics must enter the target cell through its membrane in order to perform their intended function. However, the effectiveness of these medicines is limited as gaining entry into target cells through the outer membrane can be a significant challenge. In the 1970s, it was discovered that the brief application of high-intensity, pulsed electric fields to the cell resulted in a

temporary and reversible increase in the permeability of the cell membrane. As a consequence, it was also demonstrated that there was a subsequent increase in the ability of both small and large molecules to move between the cell exterior and interior via the newly formed membrane pores.

The transient, reversible nature of the electrical permeabilization of cell membranes and the resulting increase in intracellular delivery of therapeutic agents is the underlying basis of our OMS therapeutic approach. OMS consists of an electrical pulse generator console and various disposable applicators specific to the individual tumor size, type and location. While the extent of membrane permeabilization depends on various electrical, physical, chemical, and biological parameters, research with OMS has demonstrated an increase of cellular uptake of chemical molecules from 6,000-8,000 fold above baseline. Once inside of the cell, the membrane permeability decreased thereby trapping the molecules within the cell and allowing them to perform their function. The enhanced delivery of these agents may result in the ability to not only improve cytotoxicity and therapeutic value but also to lower the required doses and thereby providing a potentially safer treatment.

DNA Delivery With Electroporation — ImmunoPulse

The greatest obstacles to making conventional immunotherapy and DNA-based immunotherapies a reality has been the limited data supporting safe, efficient, and economical delivery and expression of plasmid-DNA constructs into the target cells. We are leveraging off the past history and experience of certain managers and advisors in developing the methods and devices that optimize the use of electroporation for the efficient and effective delivery of DNA-based therapeutics. The use of OMS in this

Table of Contents

approach has been validated from multiple clinical studies assessing DNA-based immunotherapies against cancers. Together with our partners and collaborators, we plan to be the leader in establishing electroporation-delivered DNA immunotherapies. We believe that electroporation should become the method of choice for plasmid-DNA delivery into cells in many clinical applications.

The immunotherapy approach of our OMS therapy uses an electroporation system that is calibrated and designed to create optimal conditions to deliver plasmid DNA encoding immunotherapeutic cytokines into tumor cells that in turn promote anti-cancer responses. The cytokine-encoding plasmid is first injected with a syringe/needle into the selected tumor. Using a remote control, the pulse generator is switched on and electrical pulses are generated and delivered through an attached electrical cord into the injected tissue through an electrode-needle array on the applicator. When DNA injection is followed by electroporation of the target tissue, transfection is significantly greater with resultant gene expression generally enhanced from 100 to 1000-fold. This increase makes many DNA-based candidates potentially feasible without unduly compromising safety or cost.

A Phase I clinical trial in metastatic melanoma has been completed using ImmunoPulse to deliver plasmid-DNA encoding for the IL-12 cytokine. The study was designed to assess both the adaptive and innate immunity responses from the targeted delivery of the IL-12 into melanoma tumor cells. Published data have suggested that gene transfer utilizing in vivo DNA electroporation in metastatic melanoma showed that it was safe, effective, reproducible, and titratable. The findings also demonstrated not only regression of treated melanoma skin lesions, but also regression of distant untreated lesions, suggesting a systemic immune response to the localized treatment. These results are of great significance and thus the Company is now planning the further development of OMS for the delivery of plasmid-DNA encoding for the IL-12 cytokine in a Phase II clinical trial that has been initiated.

Drug Delivery With Electroporation — NeoPulse

The chemotherapeutic approach of our OMS ElectroOncology platform was formerly described as Selective Electrochemical Tumor Ablation (SECTA). OMS utilizes electroporation technologies for the local delivery of the chemotherapeutic drug bleomycin to treat solid tumors. The approach has demonstrated safety and efficacy in a wide range of solid tumors including, basal cell, squamous cell, melanoma, breast, prostate, and pancreatic. The OMS therapy has been developed up to Phase III clinical trials in the United States for the treatment of recurrent head and neck cancer and in Phase I/II for the treatment of recurrent breast cancer. In addition, Phase IV pre-marketing studies to support the commercialization of the OMS system in Europe were also performed for the treatment of primary and recurrent head and neck cancers and cutaneous skin cancers. The previous sponsor of these studies (Inovio Pharmaceuticals, Inc.) elected not to conclude the clinical testing but rather monetize certain SECTA assets in order to pursue a more focused strategy for development of DNA vaccines.

We believe that one of the distinctive features of the system is both the preservation of healthy tissue and killing of cancerous cells at the margins of the tumor. We anticipate the system may therefore afford advantages over surgery in preserving function and improving the quality of life for cancer patients who would otherwise face significant morbidity associated with cancer surgery or other methods of treatment. In addition, we believe that the OMS ElectroOncology approach will have pharmacoeconomic advantages over existing therapies and will be more readily accepted by both physicians and patients alike.

Clinical Program

We initiated three Phase II clinical trials to assess the cancer-destroying and tissue-sparing properties of the ImmunoPulse technology in patients with melanoma, Merkel cell carcinoma and cutaneous T-cell lymphoma during calendar year 2012. Our lead ImmunoPulse candidate for these trials is a DNA plasmid coding for IL-12 that is delivered using our OMS electroporation device. While the DNA IL-12 immunotherapy is administered locally, results from preclinical and Phase I clinical trials indicated that the therapy was safe and without toxic side effects. Although Phase I trials are designed to study only safety and tolerability, our Phase I melanoma trial suggested that our ImmunoPulse produced both a local and systemic effect against cancerous cells. All three Phase II clinical trials are currently physician-sponsored open label, multi-center trials. In the future we expect to transfer the physician sponsored Investigational New Drug (IND) applications for these current Phase II clinical trials to the Company.

Phase II Melanoma Trial (OMS-I100)

Our melanoma trial, entitled "Phase II trial of intratumoral pIL-12 electroporation in advanced stage cutaneous and in transit malignant melanoma," is a single dose trial treating approximately 25 patients. The primary endpoint is the objective response rate (local and distant) at six months. Secondary trial endpoints include time to objective response (complete and partial responses), duration of distant response and overall survival. We are building on positive Phase I dose escalation trial results in 24 patients with metastatic melanoma treated with pIL-12 in combination with electroporation. That study established safety and tolerability and suggested a systemic objective response in more than half of the subjects; 15% of patients showed 100% clearance of distant, nontreated tumors. Based on historical data, less than 0.25% of patients would have been expected to see regression in their untreated tumors. Our melanoma study is currently a physician-sponsored trial that is led by the University of California at San Francisco.

Table of Contents

Phase II Merkel Cell Carcinoma Trial (OMS-I110)

Merkel cell carcinoma is a rare but lethal skin cancer affecting about 1,500 people each year with 33% mortality rate. Current outcomes to chemotherapy treatment have demonstrated short-lived responses with no clear impact on overall survival. Our clinical trial, entitled "A Phase II study of intratumoral injection of interleukin-12 plasmid and in vivo electroporation in patients with Merkel cell carcinoma," is a single dose, open label trial in 15 patients. The study's endpoints are IL-12 gene expression in tumor tissue at three to four weeks post-treatment and objective response rates (both local and distant) at six months post-treatment. Secondary endpoints will evaluate time to relapse or progression and overall survival. This study will evaluate the safety and tolerability of DNA IL-12 as a treatment for Merkel cell carcinoma and aims to further validate the findings from the Phase I dose escalation trial carried out in 24 metastatic melanoma patients. This study is currently a physician-sponsored trial initiated at the University of Washington in collaboration with the University of California at San Francisco.

Phase II Cutaneous T-Cell Lymphoma (OMS-I120)

Cutaneous T-cell lymphoma, or CTCL, is a rare disease affecting approximately 3,000 people each year with current therapies requiring life-long management and treatment. Today's treatment methods delivered either locally or systemically all result in systemic toxicities. Cytokine therapies have shown some therapeutic benefit, however, the requirement for high dose systemic concentrations results in unwanted toxicities and eventual resistance to the therapy. In contrast, our ImmunoPulse treatment uses locally delivered low dose plasmid-DNA coding for IL-12, which induces a systemic immune response designed to target and destroy cancerous cells. A previous Phase I clinical trial in 24 melanoma patients demonstrated a strong safety profile for this mode of treatment. The planned clinical trial, entitled "Phase II trial of intratumoral IL-12 plasmid electroporation in cutaneous lymphoma," is an open label, multi-center study and is expected to enroll 27 patients. The trial's primary endpoint is to assess the objective response rate (both local and distant) at six months post-treatment, with safety and progression-free survival as secondary endpoint measures. ImmunoPulse is a new treatment for patients suffering from CTCL, who currently have few options to treat this chronic life-altering disease. This study is currently a physician-sponsored trial led by the University of California at San Francisco.

Scientific Advisory Panel

We have consulted with senior and respected oncology researchers to provide counsel as part of our scientific advisory panel for our ImmunoPulse clinical program, each of whom is employed elsewhere on a full-time basis. As a result, they can only spend a limited amount of time on our affairs. We expect to access scientific and medical experts in academia, as needed, to support our scientific advisory panel. The scientific advisory panel assists us on issues related to potential product applications, product development and clinical testing.

Commercialization

Our business model is based on a partnering and commercialization strategy that leverages previous in-depth clinical experiences, and late stage clinical studies in the United States (Phase III) and Europe (Phase IV). Our near term plan will be to identify and engage potential partner(s) who are established industry leaders in the field of surgical oncology, or who are seeking to expand their portfolio into this space with the purpose of partnering the NeoPulse asset in select geographic regions, such as Eastern Europe and Asia. Once a partner is engaged, we may plan to seek regulatory approvals to initiate specific studies in target markets to collect clinical, reimbursement, and pharmacoeconomic data in order to advance a joint commercialization strategy.

We plan to continue our clinical development strategy for the ImmunoPulse program with Phase II and subsequent pivotal clinical trials focused on cutaneous cancers including select rare cancers that have limited, adverse or no therapeutic alternatives. We expect our current studies to validate data from previous Phase I clinical experience, which will be used to further develop the Company's commercialization strategy for this program.

Competition

We are in a highly competitive industry. We are in competition with traditional and alternative therapies for the indications we are targeting, as well as pharmaceutical and biotechnology companies, hospitals, research organizations, individual scientists and nonprofit organizations engaged in the development of drugs and other therapies for these indications. Our competitors may succeed, and many have already succeeded, in developing competing products, obtaining FDA approval for products or gaining patient and physician acceptance of products before us for the same markets and indications that we are targeting. Many of these companies, and large pharmaceutical companies in particular, have greater research and development, regulatory, manufacturing, marketing, financial and managerial resources and

experience than we have and many of these companies may have products and product candidates that are in a more advanced stage of development than our product candidates. If we are not "first to market" for a particular indication, it may be more difficult for us or our collaborators to effectively enter markets unless we can demonstrate our products are clearly superior to existing therapies (see also "Intellectual Property" below).

Table of Contents

Examples of competitive therapies include the following:

- Surgical Resection. In 90% of cases, the primary treatment for localized and operable tumors or lesions is surgical resection alone or in combination with other modalities such as radiation therapy. Given the ability to cut an appropriate margin around the tumor in order to avoid recurrence from microscopic disease populating the periphery of the tumor mass makes surgery highly effective for early stage cancers. Recent advances in robotic surgical technology have provided more minimally invasive surgical options. However, accessibility of a tumor at times prevents the use of surgery or limits the margin that can be removed especially at sites such as the tongue where the loss of tissue results in the loss of critical function such as speech. The drawback to resecting tissue is potential disfigurement or debilitating effects on organ function. Surgery also requires additional cost in the form of hospitalization and post-operative care.

- Radiation Therapy. Radiation therapy's high-energy rays generated by an external machine or by radioactive materials placed directly into or near the tumor are used to damage and stop growth of malignant cells, which are more sensitive to the effects of radiation. Radiation is often used in combination with surgery and chemotherapy. In cases where a tumor is inoperable or unresponsive to chemotherapy, radiation is often used palliatively to limit the complications of disease progression. Radiation therapy has a number of significant side effects, in that it damages healthy cells surrounding the target area and takes several weeks to administer. It may also be costly due to the number of procedures and cost of administration.

- Chemotherapy. Post-surgery or in cases where surgery is contraindicated, chemotherapy is often used to treat systemic disease and may frequently be combined with radiation therapy. Typically it is used under the following circumstances:

    - When cancer is disseminated requiring treatment of systemic or metastatic disease;

    - Where the prognosis for local regional disease is poor due to the likelihood of disease progression;

    - Where surgery is contraindicated, e.g. certain liver or pancreatic carcinoma or as a result of the patient's overall health condition; and

    - For palliation, to achieve tumor shrinkage to ameliorate tumor symptoms or complications.

  The cytotoxicity of many existing anti-cancer drugs is well proven, but with many undesirable proven side effects including immunosuppression alopecia (loss of hair), nausea, vomiting, and in some cases drug resistance. Surgery and radiation cannot be used where treatment poses a risk to nearby nerves, blood vessels, or vital organs. All of these practices have limited efficacy in treating cancers of certain organs, such as the pancreas.

- Alternative treatments. Competitive therapies also include alternative treatments, such as radio frequency ablation, photodynamic therapy, cryoablation, brachytherapy and biologic or immunotherapy:

    - Radio Frequency Ablation ("RFA"). This modality uses radio frequency energy to heat tissue to a high enough temperature to cause ablation or cell death. An RFA ablation probe is placed directly into the target tissue. An array of several small, curved electrodes is deployed from the end of the probe. Once sufficient temperatures are reached, the heat kills the target tissue within a few minutes. This treatment has been proven efficacious in treating some solid tumors but suffers from not being tumor specific by destroying healthy as well as malignant tissue.

    - Photodynamic Therapy. Photodynamic therapy ("PDT") uses intravenous administration of a light-activated drug that accumulates in malignant cells. A non-thermal laser is used to activate the drug, producing free radical oxygen molecules that destroy the cancer. PDT has low risk of damage to adjacent normal tissue, the ability to retreat, and can be used concurrently with other treatment modalities. A major side effect of PDT is patient photosensitivity that can last up to eight weeks. Other side effects include nausea and vomiting. This method is limited by the shallow depth of penetration of the laser light which makes it more applicable to surface lesions on the skin or esophagus.

    - Cryoablation. Cryoablation is a technique being used to treat lesions in liver, kidney, prostate, and breast cancer. This method uses liquid nitrogen filled probes inserted into the tumor mass with image guided surgery to freeze cancer cells. Necrosis (cell death) occurs and the dead cells are naturally sloughed off into the body. Cryoablation has been most commonly adopted for use in treating prostate carcinoma where surgery can often lead to impotence. The technology is claimed to limit nerve damage in the prostate allowing for the retention of bladder and sexual function. Therefore, it may afford advantages over surgery and brachytherapy (see below).

- Brachytherapy. Brachytherapy involves the local implantation of radioactive seeds into or near a tumor mass. It has been most widely used in prostate and breast carcinoma in situ. The seeds decay over time resulting in the local destruction of malignant cells. The difficulty with brachytherapy, in addition to the concomitant destruction of nascent healthy tissue, is the investment and training required to administer the therapy. Recent reports also suggest that the therapy may not produce durable responses (i.e. long term cures). Consequently, brachytherapy does not appear to be growing in acceptance in the marketplace.

- Biological and Immunotherapy. This therapeutic approach stimulates the patient's own immune system to attack malignant tumor cells, which have managed to circumvent the body's natural immune processes that would normally recognize and destroy these cells before they are able to form growing cancerous tumors. Several methods have been employed to evoke this immune response, including monoclonal antibodies and autologous cell-based vaccines, as well as viral and non-viral targeted delivery of immunotherapeutic agents.

  Yervoy® is a monoclonal antibody that acts to block the CTLA-4 receptor (an immune checkpoint receptor) on T-cells. In the presence of CTLA-4 receptor it is believed tumors are able suppress the immune system from recognizing cancerous cells, however, blockade of this receptor with Yervoy® (an anti-CTLA-4 antibody) appears to allow the immune system to generate an antitumor T-cell response. Yervoy® was the first approved immunotherapy in melanoma, and current research is evaluating the use of other anti-checkpoint monoclonal antibodies. Despite these therapies showing benefit to some patients by extending life beyond traditional therapeutic options, safety and tolerance to these drugs, as well as ease of administration of the therapies, may be a deterrent for some patients. As a result, emerging therapies continue to be developed to improve upon the safety, efficacy and ease-of-use problems currently encountered by immunotherapies.

  Like Provenge®, a product developed and marketed by Dendreon Corporation, many emerging therapies continue to employ an autologous cell-based mode of delivery, which involves the harvesting of a patients own cells, growing them in a lab, incubating with a vaccine or immune stimulating agent, and re-administering the resulting product to the patient. This autologous cell-based approach has shown safety and efficacy, however, the significant cost and time involved in preparing this therapeutic treatment for each individual patient has been unattractive for many patients and clinicians.

  Viral vectors, such as adenoviruses and oncolytic viruses, have also been used to deliver immunotherapeutic payloads to fight against cancerous cells, either systemically or through direct injection into the tumor. Clinical trials for this therapeutic delivery method are on-going with no approved therapies yet to be available in the clinic, however, questions still remain about efficacy of viral vectors as a delivery method, since the patient may mobilize an immune reaction against the virus itself resulting in neutralization of the virus and clearance from the body before an effectual response is elicited. Since viral vectors are occasionally created from pathogenic viruses, involving a deletion of a part of the viral genome critical for viral replication, safety has also been a concern to avoid production of new virions.

  Other non-viral vector methods, including liposome-based delivery systems, are also currently being developed and employed in on-going clinical trials. The impact of these emerging cancer immunotherapies will ultimately be determined by their ability to improve upon the safety, efficacy, utility and cost of currently available therapies.

- Vaccination. The use of vaccination has long held interest as another potential modality that could prove beneficial in treating and limiting systemic disease. The challenge has been that many tumors do not display antigens unique to the tumor cell that the immune system can use to specifically target for selective destruction of the malignant tissue. Even though tumors over-express normal cellular products that the immune system ignores, due to a process called tolerization, the immune system is educated not to recognize self antigens early in development. As a result of the lack of immune system detection, it has proven difficult to use conventional vaccination strategies to break or overcome tolerance and generate immunity against tumor cells.

Research and Development Expenditures

Prior to our acquisition of certain assets of Inovio in March 2011, we did not engage in any research and development activities. We incurred $648,314 in research and development expenses from March 2011 through the remainder of the fiscal year ended July 31, 2011, and $2,368,481 in research and development expenses during the fiscal year ended July 31, 2012. We expect research and development to account for a significant portion of our total expenses in the future as we continue to focus on designing and developing our therapies. Our expenditures will be primarily related to the advancement of three Phase II clinical trials to assess the ImmunoPulse technology in patients with melanoma, Merkel cell carcinoma and cutaneous T-cell lymphoma. Expenditures related to these studies began during calendar year 2011 and we expect to ramp up expenditures based on enrollment in the trials and subsequent analysis of patient data from the separate studies.

Employees

Concurrent with the asset acquisition, we assembled a senior management team with many years of experience and success in biotech/pharma operations, business and commercial development and capital markets. In addition, we have assembled a clinical and

regulatory team that has had many years of experience in developing and advancing novel therapeutic approaches through clinical testing and regulatory approvals. As of October 12, 2012, we had a total of ten full-time employees.

We expect to hire additional staff and to engage consultants in regulatory, compliance, investor and public relations, and general administration as necessary. We also expect to engage experts in healthcare and in general business to advise us in various capacities.

Intellectual Property

Our success and ability to compete depends upon our intellectual property. We have acquired and have been issued 27 U.S. patents and have two U.S. patent applications pending. We expect to file additional patent applications. We have a total of 18 issued patents and patent applications in other jurisdictions. The bulk of our patents, including fundamental patents directed toward our proprietary technology, expire between 2014 and 2027. In addition, we have licensed intellectual property rights to use certain electroporation technology and intellectual property for delivering DNA-based cytokines as an immunotherapy.

Government Regulation

United States

In the United States, our product candidates are subject to extensive regulation by the Food and Drug Administration (the "FDA"). Federal and state statutes and regulations, many of which are administered by the FDA, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, postapproval monitoring and reporting, sampling, and import and export of pharmaceutical products. Failure to comply with applicable FDA or other requirements may subject a company to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending applications, a clinical hold, warning letters, recall or seizure of products, partial or total suspension of production, withdrawal of the product from the market, injunctions, fines, civil penalties or criminal prosecution.

FDA approval is required before any new unapproved drug or dosage form, including a new use of a previously approved drug, can be marketed in the United States. The process required by the FDA before a drug may be marketed in the United States generally involves, among other things:

- completion of pre-clinical testing and formulation studies in compliance with the FDA's good laboratory practice regulations;
- submission to the FDA of an investigational new drug application, or IND, for human clinical testing, which must become effective before human clinical trials may begin in the United States;
- performance of adequate human clinical trials in accordance with good clinical practices to establish the safety and efficacy of the proposed drug product for each intended use; and
- submission to the FDA of a new drug application, or NDA, which the FDA must review and approve.

The pre-clinical and clinical testing and approval process requires substantial time, effort and financial resources, and the receipt and timing of approval, if any, is highly uncertain. The results of pre-clinical tests, together with certain manufacturing information, analytical data and a proposed clinical trial protocol and other information, are submitted as part of an IND to the FDA. Once an IND is in effect, the protocol for each clinical trial to be conducted under the IND must be submitted to the FDA, which may or may not allow the trial to proceed. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development.

Table of Contents

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with good clinical practice requirements. For purposes of an NDA submission and approval, human clinical trials are typically conducted in the following sequential phases, which may overlap or be combined:

- *Phase I*: The drug is initially introduced into healthy human subjects or patients and tested for safety, dose tolerance, absorption, metabolism, distribution and excretion and, if possible, to gain an early indication of its effectiveness.
- *Phase II*: The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted indications and to determine dose tolerance and optimal dosage. Multiple Phase II clinical trials may be conducted.
- *Phase III*: The drug is administered in large patient populations to obtain additional evidence of clinical efficacy and safety in an expanded patient population at multiple, geographically-dispersed clinical trial sites and to establish the overall risk-benefit relationship of the drug.
- *Phase IV*: In some cases, the FDA may condition approval of an NDA for a product candidate on the sponsor's agreement to conduct additional clinical trials to further assess the drug's safety and effectiveness after NDA approval.

The results of product development, pre-clinical studies and clinical trials are submitted to the FDA as part of an NDA requesting approval to market the product. NDAs must also contain extensive information relating to the product's pharmacology, chemistry, manufacture, controls and proposed labeling, among other things.

Once the submission has been accepted for filing, the FDA begins an in-depth substantive review. Pursuant to the FDA's performance goals, NDA reviews are to be completed within ten months, subject to extensions by the FDA. Before approving an NDA, the

FDA often inspects the facility or facilities where the product is manufactured and will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with good manufacturing practices. Additionally, the FDA will typically inspect one or more clinical sites to assure compliance with good clinical practices before approving an NDA. If the FDA determines that the NDA is not acceptable, then the FDA may outline the deficiencies in the NDA and often will request additional information or additional clinical trials. Notwithstanding the submission of any requested additional testing or information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

Even if regulatory approval of a product candidate is obtained, such approval will usually entail limitations on the indicated uses for which the product may be marketed. Additionally, the FDA may require post-approval testing, such as Phase IV studies, or surveillance programs to monitor the effect of approved products, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

After FDA approval, a product will be subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to drug/device listing, recordkeeping, periodic reporting, product sampling and distribution, manufacturing practices, labeling, advertising and promotion, and reporting of adverse experiences with the product. The FDA may withdraw its approval of a product if compliance with regulatory requirements and manufacturing standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things: restrictions on the marketing or manufacturing of the product; complete withdrawal of the product from the market or product recalls; fines, warning letters or holds on post-approval clinical trials; or injunctions or the imposition of civil or criminal penalties.

International Regulation

If we pursue research and/or commercialization of our product candidates in countries other than the United States, then we would need to obtain the necessary approvals by the regulatory authorities of such foreign countries comparable to the FDA before we could commence clinical trials or marketing of our product candidates in those countries, and we would be subject to a variety of foreign regulations regarding safety and efficacy and governing, among other things, clinical trials and commercial sales and distribution of our products. The approval process and requirements vary from country to country and can involve additional product testing and additional review periods, and the time may be longer or shorter than that required to obtain FDA approval.

Other Regulatory Requirements and Environmental Matters

We are or may become subject to various laws and regulations regarding laboratory practices and the experimental use of animals, as well as environmental laws and regulations governing, among other things, any use and disposal by us of hazardous or potentially hazardous substances in connection with our research. In each of these areas, as above, the FDA and other government agencies have broad regulatory and enforcement powers, including, among other things, the ability to levy fines and civil penalties, suspend or delay issuance of approvals, seize or recall products, and withdraw approvals, any one or more of which could have a material adverse effect on us. Additionally, if we are able to successfully obtain approvals for and commercialize our product candidates, then we may become subject to various federal, state and local laws targeting fraud, abuse, privacy and security in the healthcare industry.

Table of Contents

ITEM 1A. RISK FACTORS

You should consider each of the following factors as well as the other information in this Report in evaluating our business and our prospects. Our business, financial condition, results of operations and stock price could be materially adversely affected by a wide range of factors.. Additional risks not presently known to us or that we currently deem immaterial may also impair our business financial condition, results of operations and stock price.

We must raise additional capital in order to continue operating our business, and such additional funds may not be available on acceptable terms or at all.

We do not generate any cash from operations and must raise additional funds in order to continue operating our business. We expect our cash requirements over the annual fiscal period ending July 31, 2013, including our mandatory payments to Inovio under the Asset Purchase Agreement, to be approximately $6,400,000. As of July 31, 2012, we had cash and cash equivalents of $5,141,509.

We expect to continue to fund our operations primarily through equity and debt financings in the future. If additional capital is not available, we may not be able to continue to operate our business pursuant to our business plan or we may have to discontinue our operations entirely. We will require additional financing to fund our planned operations, including developing and commercializing the assets obtained under the Asset Purchase Agreement with Inovio, seeking to license or acquire new assets, researching and developing any potential patents, related compounds and other intellectual property, funding potential acquisitions, and supporting clinical trials and seeking regulatory approval relating to our assets and any assets we may acquire in the future. Additional financing may not be available to us when needed or, if available, may not be available on commercially reasonable terms. If we issue equity or convertible debt securities to raise additional funds, our existing stockholders may experience substantial dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we incur additional debt, it may increase our leverage relative to our earnings or to our equity capitalization, requiring us to pay additional interest expenses. Obtaining commercial loans, assuming those loans would be available, would increase our liabilities and future cash commitments.

We may not be able to obtain additional financing if the volatile conditions in the capital and financial markets, and more particularly

the market for early development stage biomedical company stocks, persist. Weak economic and capital markets conditions could result in increased difficulties in raising capital for our operations. We may not be able to raise money through the sale of our equity securities or through borrowing funds on terms we find acceptable. If we cannot raise the funds that we need, we will be unable to continue our operations, and our stockholders could lose their entire investment in our company.

We have never generated revenue from our operations and our independent auditors have expressed substantial doubt about our ability to continue as a going concern.

We have not generated any revenue from operations since our inception. During the annual period ended July 31, 2012, we incurred a net loss of $2,364,852. From inception through July 31, 2012, we incurred an aggregate loss of $6,200,728. We expect that our operating expenses will increase substantially over the 2013 fiscal year as we continue to pursue U.S. Food and Drug Administration ("FDA") approval for our product candidates. We expect our expenses during our fiscal year ending July 31, 2013 to be approximately $6,400,000, including general and administrative expenses and our mandatory payments to Inovio but excluding the cost of any future acquisitions and development activities. As of July 31, 2012, we had cash and cash equivalents of $5,141,509.

In order to fund our anticipated budget through the end of our fiscal year ending July 31, 2013, including payments owing to Inovio under the Asset Purchase Agreement, we believe that we will need to raise approximately $1.3 million in additional funds. This amount could increase if we encounter unanticipated difficulties. In addition, our estimates of the amount of cash necessary to fund our business and development and commercialization activities may prove to be wrong, and we could spend our available financial resources much faster than we currently expect. If we cannot raise the money that we need in order to continue to develop our business, we will be forced to delay, scale back or eliminate some or all of our proposed operations. If any of these were to occur, there is a substantial risk that our business would fail.

These circumstances raise substantial doubt about our ability to continue as a going concern, as described in the explanatory paragraph to our independent auditors' report on our financial statements for the year ended July 31, 2012, which is included elsewhere in this Annual Report. Although our financial statements raise substantial doubt about our ability to continue as a going concern, they do not reflect any adjustments that might result if we are unable to continue our business. Our financial statements contain additional note disclosures describing the circumstances that lead to this disclosure by our independent auditors.

Table of Contents

We are an early-stage company with a limited operating history, which may hinder our ability to successfully meet our objectives.

We are an early-stage company with only a limited operating history upon which to base an evaluation of our current business and future prospects and how we will respond to competitive, financial or technological challenges. Only recently have we explored opportunities in the biomedical industry. As a result, the revenue and income potential of our business is unproven. In addition, because of our limited operating history, we have limited insight into trends that may emerge and affect our business. Errors may be made in predicting and reacting to relevant business trends and we will be subject to the risks, uncertainties and difficulties frequently encountered by early-stage companies in evolving markets. We may not be able to successfully address any or all of these risks and uncertainties. Failure to adequately do so could cause our business, results of operations and financial condition to suffer or fail.

We have not commercialized any of our potential product candidates and we cannot predict if or when we will become profitable.

We have not commercialized any product candidate relating to our current assets in the biomedical industry. Our ability to generate revenues from any of our product candidates will depend on a number of factors, including our ability to successfully complete clinical trials, obtain necessary regulatory approvals and negotiate arrangements with third parties to help finance the development of, and market and distribute, any product candidate that receives regulatory approval. In addition, we will be subject to the risk that the marketplace will not accept our products.

Because of the numerous risks and uncertainties associated with our product development and commercialization efforts, we are unable to predict the extent of our future losses or when or if we will become profitable, and it is possible we will never commercialize any of our product candidates or become profitable. Our failure to obtain regulatory approval and successfully commercialize any of our product candidates would have a material adverse effect on our business, results of operations, financial condition and prospects and could result in our inability to continue operations.

If we are unable to successfully recruit and retain qualified personnel, we may not be able to continue our operations.

In order to successfully implement and manage our business plan, we will depend upon, among other things, successfully recruiting and retaining qualified personnel having experience in the biomedical industry. Competition for qualified individuals is intense. If we are not able to find, attract and retain qualified personnel on acceptable terms, our business operations could suffer.

Additionally, although we have employment agreements with each of our executive officers, these agreements are terminable by them at will and we may not be able to retain their services. The loss of the services of any members of our senior management team could delay or prevent the development and commercialization of any other product candidates and our business could be harmed to the extent that we are not able to find suitable replacements.

Future growth could strain our resources, and if we are unable to manage our growth, we may not be able to successfully implement our business plan.

We hope to experience rapid growth in our operations, which will place a significant strain on our management, administrative, operational and financial infrastructure. Our future success will depend in part upon the ability of our executive officers to manage growth effectively. This will require that we hire and train additional personnel to manage our expanding operations. In addition, we must continue to improve our operational, financial and management controls and our reporting systems and procedures. If we fail to successfully manage our growth, we may be unable to execute upon our business plan.

We may be unable to successfully develop and commercialize the assets we recently acquired, or acquire, or develop and commercialize new assets and product candidates.

Our future results of operations will depend to a significant extent upon our ability to successfully develop and commercialize in a timely manner the assets we recently acquired from Inovio related to certain non-DNA vaccine technology and intellectual property relating to selective electrochemical tumor ablation, which we now refer to as the OncoSec Medical System ("OMS"). In addition, we may acquire new assets or product candidates in the future. There are numerous difficulties inherent in acquiring, developing and commercializing new products and product candidates, including difficulties related to:

- successfully identifying potential product candidates;
- developing potential product candidates;
- difficulties in conducting or completing clinical trials, including receiving incomplete, unconvincing or equivocal clinical trials data;

Table of Contents

- obtaining requisite regulatory approvals for such products in a timely manner or at all;
- acquiring, developing, testing and manufacturing products in compliance with regulatory standards in a timely manner or at all;
- being subject to legal actions brought by our competitors, which may delay or prevent the development and commercialization of new products;
- delays or unanticipated costs; and
- significant and unpredictable changes in the payer landscape, coverage and reimbursement for any products we develop.

As a result of these and other difficulties, we may be unable to develop potential product candidates using our intellectual property, and potential products in development by us may not receive timely regulatory approvals, or approvals at all, necessary for marketing by us or our third-party partners. If we do not acquire or develop product candidates, any of our product candidates are not approved in a timely fashion or at all or, when acquired or developed and approved, cannot be successfully manufactured and commercialized, our operating results would be adversely affected. In addition, we may not recoup our investment in developing products, even if we are successful in commercializing those products. Our business expenditures may not result in the successful acquisition, development or commercialization of products that will prove to be commercially successful or result in the long-term profitability of our business.

Regulatory authorities may not approve our product candidates or the approvals may be too limited for us to earn sufficient revenues.

The United States Food and Drug Administration (the "FDA") and other foreign regulatory agencies can delay approval of or refuse to approve our product candidates for a variety of reasons, including failure to meet safety and efficacy endpoints in our clinical trials. Our product candidates may not be approved even if they achieve their endpoints in clinical trials. Regulatory agencies, including the FDA, may disagree with our trial design and our interpretation of data from preclinical studies and clinical trials. Clinical trials of our product candidates may not demonstrate that they are safe and effective to the extent necessary to obtain regulatory approvals. We have initiated three Phase II clinical trials to assess our ImmunoPulse technology in patients with metastatic melanoma, Merkel cell carcinoma and cutaneous T-cell lymphoma. If we cannot adequately demonstrate through the clinical trial process that a therapeutic product we are developing is safe and effective, regulatory approval of that product would be delayed or prevented, which would impair our reputation, increase our costs and prevent us from earning revenues. Even if a product candidate is approved, it may be approved for fewer or more limited indications than requested or the approval may be subject to the performance of significant post-marketing studies. In addition, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our product candidates. Any limitation, condition or denial of approval would have an adverse affect on our business, reputation and results of operations.

Acquisition of the OMS technology included an extensive clinical database from two Phase III clinical trials that were halted before enrollment was completed. In 2007, these two Phase III clinical trials, HNBE-01 and HNBE-02, which were designed to evaluate the use of the NeoPulse technology as a treatment for resectable recurrent and second primary squamous cell carcinomas of the head and neck were halted as a result of a recommendation from the Data Monitoring Committee (DMC). The DMC cited concerns regarding efficacy and safety, including mortality rates and enrollment futility. In the DMC's opinion, although no single parameter was sufficient to warrant recommending a review of the trial, the totality of data for these recurrent head and neck cancer studies suggested an unfavorable benefit-to-risk profile for the NeoPulse arm relative to the surgery arm. Without conducting further analysis, enrollment for both studies were halted, however the treated patients were followed up to two years to further evaluate safety and efficacy, as per the protocol, and the clinical trials were not reinitiated. Upon acquisition of the OMS technology, OncoSec has since carried out extensive analysis of the available data from

214 patients treated in both Phase III studies, which indicated that there were no statistically significant differences between time to death or duration of local control between the control or experimental arms, or the combined groups across studies. Furthermore, none of the other parameters examined, including demographics, time since original diagnosis, prior therapies or tumor stage, showed any significant statistical difference between these parameters. OncoSec is continuing to evaluate this data, however if we are unable to initiate or complete new Phase III or pivotal clinical studies, we will be unable to commercialize the NeoPulse technology.

Table of Contents

Delays in the commencement or completion of clinical testing for product candidates based on the OMS technology could result in increased costs to us and delay or limit our ability to pursue regulatory approval or generate revenues.

Clinical trials are very expensive, time consuming and difficult to design and implement. Even if the results of our proposed clinical trials are favorable, clinical trials for product candidates based on the OMS technology will continue for several years and may take significantly longer than expected to complete. Delays in the commencement or completion of clinical testing could significantly affect our product development costs and business plan. We do not know whether our Phase II clinical trials will be completed on schedule, if at all. In addition, we do not know whether any other pre-clinical or clinical trials will begin on time or be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- obtaining clearance from the FDA or respective international regulatory equivalent to commence a clinical trial;
- reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, clinical investigators and trial sites;
- obtaining institutional review board, or IRB, approval to initiate and conduct a clinical trial at a prospective site;
- identifying, recruiting and training suitable clinical investigators;
- identifying, recruiting and enrolling subjects to participate in clinical trials for a variety of reasons, including competition from other clinical trial programs for similar indications; and
- retaining patients who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy, personal issues, or for any other reason they choose, or who are lost to further follow-up.

We believe that we have planned and designed an adequate clinical trial program for our product candidates based on our OMS technology. However, the FDA could determine that it is not satisfied with our plan or the details of our pivotal clinical trial protocols and designs.

Additionally, changes in applicable regulatory requirements and guidance may occur and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial. If we experience delays in completion of, or if we terminate, any of our clinical trials, the commercial prospects for our product candidates may be harmed, which may have a material adverse effect on our business, results of operations, financial condition and prospects.

We expect to rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We expect to enter into agreements with third-party CROs to conduct our planned clinical trials and anticipate that we may enter into other such agreements in the future regarding any future product candidates. We rely heavily on these parties for the execution of our clinical and pre-clinical studies, and control only certain aspects of their activities. We, and our CROs, are required to comply with the current FDA Code of Federal Regulations for Conducting Clinical Trials and GCP and ICH guidelines. The FDA enforces these GCP regulations through periodic inspections of trial sponsors, principal investigators, CRO trial sites, laboratories, and any entity having to do with the completion of the study protocol and processing of data. If we, or our CROs, fail to comply with applicable GCP regulations, the data generated in our clinical trials may be deemed unreliable and the FDA may require us to perform additional clinical trials before approving our marketing applications. Upon inspection, the FDA and similar foreign regulators may determine that our clinical trials are not compliant with GCP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

If any of our relationships with third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs on commercially reasonable terms, or at all. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates could be harmed, our costs could increase and our ability to generate additional revenues could be delayed.

We may participate in clinical trials conducted under an approved investigator sponsored investigational new drug (IND) application and correspondence and communication with the FDA pertaining to these trials will strictly be between the investigator and the FDA.

Currently, our three Phase II clinical trials, for metastatic melanoma, Merkel cell carcinoma and cutaneous T-cell lymphoma, are being conducted under an approved investigator sponsored investigational new drug (IND) application. Regulations and guidelines imposed by the FDA with respect to IND applications include a requirement that the sponsor of a clinical trial provide ongoing communication with the agency as it pertains to safety of the treatment. This communication can be relayed to the agency in the form of safety reports, annual reports or verbal communication at the request of the FDA. Accordingly, since the IND applications under which each of our three clinical trials will be conducted is held by the investigators, it is the responsibility of each investigator (as the sponsor of the trial) to be the point of contact with the FDA. The communication and information provided by the investigator may not be appropriate and accurate, and the investigator has the ultimate responsibility and final decision-making authority with respect to submissions to the FDA. This may result in reviews, audits, delays or clinical holds by the FDA ultimately affecting the timelines for these studies and potentially risking the completion of these trials.

We may incur liability if our promotions of product candidates are determined, or are perceived, to be inconsistent with regulatory guidelines.

The FDA provides guidelines with respect to appropriate product promotion and continuing medical and health education activities. Although we endeavor to follow these guidelines, the FDA or the Office of the Inspector General: U.S. Department of Health and Human Services may disagree, and we may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions. In addition, management's attention could be diverted and our reputation could be damaged.

We have limited experience in manufacturing our product candidates in quantities required to conduct our clinical trials, and if our products are eventually approved for sale by the FDA, in manufacturing commercial quantities. We may not be able to comply with applicable manufacturing regulations or produce sufficient product for contract, clinical trial or commercial purposes.

The commercial manufacturing of DNA based cytokines and other biological products is a time-consuming and complex process, which must be performed in compliance with the FDA's current Good Manufacturing Practices, or cGMP, regulations. We may not be able to comply with the cGMP regulations, and our manufacturing process may be subject to delays, disruptions or quality control problems. In addition, we may need to complete the installation and validation of additional large-scale fermentation and related purification equipment to produce the quantities of product expected to be required for clinical trials, and if our products are eventually approved for sale by the FDA, for commercial purposes. We have limited experience in manufacturing at this scale. Noncompliance with the cGMP regulations, the inability to complete the installation or validation of additional large-scale equipment, or other problems with our manufacturing process may limit or delay the development or commercialization of our product candidates, and cause us to breach our contract manufacturing service arrangements.

If any product candidate for which we receive regulatory approval does not achieve broad market acceptance or coverage by third-party payors, the revenues that we generate may be limited.

The commercial success of any potential product candidates for which we obtain marketing approval from the FDA or other regulatory authorities will depend upon the acceptance of these products by physicians, patients, healthcare payors and the medical community. Coverage and reimbursement of our approved product by third-party payors is also necessary for commercial success. The degree of market acceptance of any potential product candidates for which we may receive regulatory approval will depend on a number of factors, including:

- our ability to provide acceptable evidence of safety and efficacy;
- acceptance by physicians and patients of the product as a safe and effective treatment;
- the prevalence and severity of adverse side effects;
- limitations or warnings contained in a product's FDA-approved labeling;
- the clinical indications for which the product is approved;
- availability and perceived advantages of alternative treatments;

- any negative publicity related to our or our competitors' products;
- the effectiveness of our or any current or future collaborators' sales, marketing and distribution strategies;
- pricing and cost effectiveness;

- our ability to obtain sufficient third-party payor coverage or reimbursement; and

- the willingness of patients to pay out of pocket in the absence of third-party payor coverage.

Our efforts to educate the medical community and third-party payors on the benefits of any of our potential product candidates for which we obtain marketing approval from the FDA or other regulatory authorities may require significant resources and may never be successful. If our potential products do not achieve an adequate level of acceptance by physicians, third-party payors and patients, we may not generate sufficient revenue from these products to become or remain profitable.

We may not be successful in executing our strategy for the commercialization of our product candidates. If we are unable to successfully execute our commercialization strategy, we may not be able to generate significant revenue.

We intend to advance a commercialization strategy that leverages previous in-depth clinical experiences, previous CE (Conformité Européene) approvals for the electroporation-based devices and late stage clinical studies in the United States (Phase III) and Europe (Phase IV). This strategy includes seeking approval from the FDA to initiate pivotal registration studies in the United States for select rare cancers that have limited, adverse or no therapeutic alternatives. This strategy also includes expanding the addressable markets for the OMS therapies through the addition of relevant indications. Our commercialization plan also includes partnering and/or co-developing OMS in developing geographic locations, such as Eastern Europe and Asia, where local resources are best leveraged and appropriate collaborators can be secured.

We may not be able to implement our commercialization strategy as we have planned. Further, we have little experience and have not proven our ability to succeed in the biomedical industry and are not certain that our implementation strategy, if implemented correctly, would lead to significant revenue. If we are unable to successfully implement our commercialization plans and drive adoption by patients and physicians of our potential future products through our sales, marketing and commercialization efforts, then we will not be able to generate significant revenue which will have a material adverse effect on our business, results of operations, financial condition and prospects.

In order to market our proprietary products, we may choose to establish our own sales, marketing and distribution capabilities. We have no experience in these areas, and if we have problems establishing these capabilities, the commercialization of our products would be impaired.

We may choose to establish our own sales, marketing and distribution capabilities to market products to our target markets. We have no experience in these areas, and developing these capabilities will require significant expenditures on personnel and infrastructure. While we intend to market products that are aimed at a small patient population, we may not be able to create an effective sales force around even a niche market. In addition, some of our product candidates may require a large sales force to call on, educate and support physicians and patients. We may desire in the future to enter into collaborations with one or more pharmaceutical companies to sell, market and distribute such products, but we may not be able to enter into any such arrangement on acceptable terms, if at all. Any collaboration we do enter into may not be effective in generating meaningful product royalties or other revenues for us.

Our success depends in part on our ability to protect our intellectual property. Because of the difficulties of protecting our proprietary rights and technology, we may not be able to ensure their protection.

Our commercial success will depend in large part on obtaining and maintaining patent, trademark and trade secret protection of our product candidates and their respective components, formulations, manufacturing methods and methods of treatment, as well as successfully defending these patents against third-party challenges. Our ability to stop third parties from making, using, selling, offering to sell or importing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities.

The coverage claimed in a patent application typically is significantly reduced before a patent is issued, either in the United States or abroad. Consequently, any of our pending or future patent applications may not result in the issuance of patents and any patents issued may be subjected to further proceedings limiting their scope and may in any event not contain claims broad enough to provide meaningful protection. Any patents that are issued to us or our future collaborators may not provide significant proprietary protection or competitive advantage, and may be circumvented or invalidated. In addition, unpatented proprietary rights, including

Table of Contents

trade secrets and know-how, can be difficult to protect and may lose their value if they are independently developed by a third party or if their secrecy is lost. Further, because development and commercialization of our potential product candidates can be subject to substantial delays, our patents may expire and provide only a short period of protection, if any, following any future commercialization of products. Moreover, obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements. If any of our patents are found to be invalid or unenforceable, or if we are otherwise unable to adequately protect our rights, it could have a material adverse impact on our business and our ability to commercialize or license our technology and products.

We may incur substantial costs as a result of litigation or other proceedings relating to protection of our patent and other intellectual property rights, and we may be unable to successfully protect our rights to our potential products and technology.

If we choose to go to court to stop a third party from using the inventions claimed by our patents, that third party may ask the court to rule that the patents are invalid and/or should not be enforced. These lawsuits are expensive and could consume time and other resources even if we were successful in stopping the infringing activity. In addition, the court could decide that our patents are not valid and that we do not have the right to stop others from using the inventions claimed by the patents.

Additionally, even if the validity of these patents is upheld, the court could refuse to stop a third party's infringing activity on the ground that such activities do not infringe our patents. The U.S. Supreme Court has recently revised certain tests regarding granting patents and assessing the validity of patents to make it more difficult to obtain patents. As a consequence, issued patents may be found to contain invalid claims according to the newly revised standards. Some of our patents may be subject to challenge and subsequent invalidation or significant narrowing of claim scope in a reexamination proceeding, or during litigation, under the revised criteria.

Third parties may claim that we infringe their proprietary rights and may prevent us from manufacturing and selling some of our products.

The manufacture, use and sale of new products that are the subject of conflicting patent rights have been the subject of substantial litigation in the biomedical industry. These lawsuits relate to the validity and infringement of patents or proprietary rights of third parties. Litigation may be costly and time-consuming, and could divert the attention of our management and technical personnel. In addition, if we infringe on the rights of others, we could lose our right to develop, manufacture or market products or could be required to pay monetary damages or royalties to license proprietary rights from third parties. Although the parties to patent and intellectual property disputes in the biomedical industry have often settled their disputes through licensing or similar arrangements, the costs associated with these arrangements may be substantial and could include ongoing royalties. Furthermore, we cannot be certain that the necessary licenses would be available to us on commercially reasonable terms or at all. As a result, an adverse determination in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling our products, and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Extensive industry regulation has had, and will continue to have, a significant impact on our business, especially our product development, manufacturing and distribution capabilities.

All biomedical companies are subject to extensive, complex, costly and evolving government regulation. For the U.S., these regulations are principally administered by the FDA and to a lesser extent by the United States Drug Enforcement Agency (the "DEA") and state government agencies, as well as by various regulatory agencies in foreign countries where products or product candidates are being manufactured and/or marketed. The Federal Food, Drug and Cosmetic Act, the Controlled Substances Act and other federal statutes and regulations, and similar foreign statutes and regulations, govern or influence the testing, manufacturing, packing, labeling, storing, record keeping, safety, approval, advertising, promotion, sale and distribution of our products. Under these regulations, we may become subject to periodic inspection of our facilities, procedures and operations and/or the testing of our product candidates and products by the FDA, the DEA and other authorities, which conduct periodic inspections to confirm that we are in compliance with all applicable regulations. In addition, the FDA and foreign regulatory agencies conduct pre-approval and post-approval reviews and plant inspections to determine whether our systems and processes are in compliance with cGMP and other regulations. Following such inspections, the FDA or other agency may issue observations, notices, citations and/or warning letters that could cause us to modify certain activities identified during the inspection. To the extent that we successfully commercialize any product, we may also be subject to ongoing FDA obligations and continued regulatory review with respect to manufacturing, processing, labeling, packaging, distribution, storage, advertising, promotion and recordkeeping for the product. Additionally, we may be required to conduct potentially costly post-approval studies and report adverse events associated with our products to FDA and other regulatory authorities. Unexpected or serious health or safety concerns would result in labeling changes, recalls, market withdrawals or other regulatory actions.

Table of Contents

The range of possible sanctions includes, among others, FDA issuance of adverse publicity, product recalls or seizures, fines, total or partial suspension of production and/or distribution, suspension of the FDA's review of product applications, enforcement actions, injunctions, and civil or criminal prosecution. Any such sanctions, if imposed, could have a material adverse effect on our business, operating results, financial condition and cash flows. Under certain circumstances, the FDA also has the authority to revoke previously granted drug approvals. Similar sanctions as detailed above may be available to the FDA under a consent decree, depending upon the actual terms of such decree. If internal compliance programs do not meet regulatory agency standards or if compliance is deemed deficient in any significant way, it could materially harm our business.

Moreover, the regulations, policies or guidance of the FDA or other regulatory agencies may change and new or additional statutes or government regulations may be enacted that could prevent or delay regulatory approval of our product candidates or further restrict or regulate post-approval activities. If we are not able to achieve and maintain regulatory compliance, we may not be permitted to market our potential product candidates, which would adversely affect our ability to generate revenue and achieve or maintain profitability.

We face potential product liability exposure and if successful claims are brought against us, we may incur substantial liability.

The clinical use of our product candidates exposes us to the risk of product liability claims. Any side effects, manufacturing defects, misuse or abuse associated with our product candidates could result in injury to a patient or even death. In addition, a liability claim may be brought against us even if our product candidates merely appear to have caused an injury. Product liability claims may be brought against us by consumers, healthcare providers, pharmaceutical companies or others coming into contact with our product candidates, among others.

Regardless of merit or potential outcome, product liability claims against us may result in, among other effects, the inability to commercialize our product candidates, impairment of our business reputation, withdrawal of clinical trial participants and distraction of

management's attention from our primary business. If we cannot successfully defend ourselves against product liability claims we could incur substantial liabilities.

The biomedical industry is highly competitive.

The biomedical industry has an intensely competitive environment that will require an ongoing, extensive search for technological innovations and the ability to market products effectively, including the ability to communicate the effectiveness, safety and value of products to healthcare professionals in private practice, group practices and payers in managed care organizations, group purchasing organizations and Medicare & Medicaid services. We face competition from a number of sources, including large pharmaceutical companies, biotechnology companies, academic institutions, government agencies and private and public research institutions. We are smaller than almost all of our competitors. Most of our competitors have been in business for a longer period of time than us, have a greater number of products on the market and have greater financial and other resources than we do. Furthermore, recent trends in this industry are that large drug companies are consolidating into a smaller number of very large entities, which further concentrates financial, technical and market strength and increases competitive pressure in the industry. If we directly compete with these very large entities for the same markets and/or products, their financial strength could prevent us from capturing a share of those markets. It is possible that developments by our competitors will make any products or technologies that we develop or acquire noncompetitive or obsolete.

If our competitors market and/or develop competing product candidates that are marketed more effectively, approved more quickly or demonstrated to be safer or more effective than our product candidates, then our commercial opportunities may be reduced or eliminated.

The pharmaceutical industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary therapeutics. If we are able to obtain regulatory approval of our product candidates related to our OMS technology or any assets we may acquire in the future, we will face competition from products currently marketed by companies much larger than us that address our targeted indications.

In addition to already marketed products, we also face competition from product candidates that are or could be under development. We expect our product candidates, if approved and commercialized, to compete on the basis of, among other things, product efficacy and safety, time to market, price, patient reimbursement by third-party payors, extent of adverse side effects and convenience of treatment procedures. We may not be able to effectively compete in one or more of these areas. We also may not be able to differentiate any products that we are able to market from those of our competitors or successfully develop or introduce new products that are less costly or offer better results than those of our competitors.

Table of Contents

Additionally, our competitors may obtain regulatory approval of their products more rapidly than we are able to or may obtain patent protection or other intellectual property rights that limit or block us from developing or commercializing our product candidates. Our competitors may also develop products that are more effective, more useful, better tolerated, subject to fewer or less severe side effects, more widely prescribed or accepted or less costly than ours and may also be more successful than us in manufacturing and marketing their products. If we are unable to compete effectively with the marketed therapeutics of our competitors or if such competitors are successful in developing products that compete with our potential product candidates that are approved, our business, results of operations, financial condition and prospects may be materially adversely affected.

If we fail to comply with federal and state healthcare laws, including fraud and abuse and health information privacy and security laws, we could face substantial penalties and our business, results of operations, financial condition and prospects could be adversely affected.

Even though we do not and will not control referrals of healthcare services or bill directly to third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights may be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business. To the extent that any product we make is sold in a foreign country, we also may be subject to foreign laws and regulations. If we or our operations are found to be in violation of any of these laws or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in U.S. federal or state health care programs, and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could materially adversely affect our ability to operate our business and our financial results. Further, any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly.

We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management.

From time to time we may consider engaging in strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of products, product candidates or technologies. Any such transaction may require us to incur non-recurring or other charges, may increase our near and long-term expenditures and may pose significant integration challenges or disrupt our management or business, which could adversely affect our operations and financial results. For example, these transactions may entail numerous operational and financial risks, including, among others, exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to develop acquired products, product candidates or technologies, difficulty and cost in combining the operations

and personnel of any acquired businesses with our operations and personnel, and inability to retain key employees of any acquired businesses. Accordingly, although we may not choose to undertake or may not be able to successfully complete any transactions of the nature described above, any transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition and prospects.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems and those of our current and any future partners, contractors and consultants are vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. System failures, accidents or security breaches could cause interruptions in our operations, and could result in a material disruption of our commercialization activities, development programs and our business operations, in addition to possibly requiring substantial expenditures of resources to remedy. The loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the commercialization of any potential product candidate could be delayed.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results. As a result, current and potential stockholders could lose confidence in our financial reporting, which would harm our business.

Effective internal controls are necessary for us to provide reliable financial reports. If we cannot provide reliable financial reports, our operating results could be misstated, our reputation may be harmed and the trading price of our stock could be negatively affected. As we discuss in Item 9A of this Annual Report, we have only recently remediated certain material weaknesses in our internal control over financial reporting related to period end financial disclosures and reporting process and inadequate segregation of duties. We have implemented actions to address these weaknesses and to enhance the reliability and effectiveness of our internal controls and operations, and our management has concluded that there are no material weaknesses in our internal controls over financial reporting as of July 31, 2012. However, our controls over financial processes and reporting may not continue to be effective, or we may identify additional material weaknesses or significant deficiencies in our internal controls in the future. Any failure to remediate any future material weaknesses or implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results, cause us to fail to meet our reporting obligations or result in material misstatements in our financial statements or other public disclosures. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock.

Table of Contents

Maintaining compliance with our obligations as a public company may strain our resources and distract management, and if we do not remain compliant our stock price may be adversely affected.

We are required to evaluate our internal control systems in order to allow management to report on our internal controls as required by Section 404 of the Sarbanes-Oxley Act of 2002, and our management is required to attest to the adequacy of our internal controls. Recent SEC pronouncements suggest that in the next several years we may be required to report our financial results using new International Financial Reporting Standards, replacing GAAP, which would require us to make significant investments in training, hiring, consulting and information technology, among other investments. All of these and other reporting requirements and heightened corporate governance obligations that we face, or will face, will further increase the cost to us, perhaps substantially, of remaining compliant with our obligations under the Exchange Act and other applicable laws, including the Sarbanes-Oxley Act and the Dodd-Frank Act of 2010. In order to meet these incremental obligations, we will need to invest in our corporate and accounting infrastructure and systems, and acquire additional services from third party auditors and advisors. As a result of these requirements and investments, we may incur significant additional expenses and may suffer a significant diversion of management's time. There is no guarantee that we will be able to continue to meet these obligations in a timely manner, and we could therefore be subject to sanctions or investigation by regulatory authorities such as the SEC. Any such actions could adversely affect the market price of our common stock, perhaps significantly.

Risks Related to our Common Stock

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

The continued operation and expansion of our business will require substantial funding. Investors seeking cash dividends in the foreseeable future should not purchase our common stock. We have paid no cash dividends on any of our capital stock to date and we currently intend to retain our available cash to fund the development and growth of our business. Any determination to pay dividends in the future will be at the discretion of our Board of Directors and will depend upon results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors our Board of Directors deems relevant. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock, which may never occur.

If we issue additional shares in the future, our existing shareholders will be diluted.

Our articles of incorporation authorize the issuance of up to 3,200,000,000 shares of common stock with a par value of $0.0001 per share. Our Board of Directors may choose to issue some or all of such shares to acquire one or more companies or products and to fund our overhead and general operating requirements. The issuance of any such shares will reduce the book value per share and may contribute to a

reduction in the market price of the outstanding shares of our common stock. If we issue any such additional shares, such issuance will reduce the proportionate ownership and voting power of all current shareholders. Further, such issuance may result in a change of control of our corporation.

Sales of common stock by our stockholders, or the perception that such sales may occur, could depress our stock price.

The market price of our common stock could decline as a result of sales by, or the perceived possibility of sales by, our existing stockholders. As of the date of this filing, since March 2011 we have completed a number of private placements and one public offering of our common stock and warrants and have issued an aggregate of 82,702,000 shares of our common stock, including common stock underlying warrants. Future sales of common stock by significant stockholders, including by those who acquired their shares in our prior offerings or who are affiliates, or the perception that such sales may occur, could depress the price of our common stock.

Trading of our stock is restricted by the SEC's "penny stock" regulations and certain FINRA rules, which may limit a stockholder's ability to buy and sell our common stock.

Our securities are covered by certain "penny stock" rules, which impose additional sales practice requirements on broker-dealers who sell low-priced securities to persons other than established customers and accredited investors. For transactions covered by these rules, a broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to sale, among other things. These rules may affect the ability of broker-dealers and holders to sell our common stock and may negatively impact the level of trading activity for our common stock. To the extent our common stock remains subject to the penny stock regulations, such regulations may discourage investor interest in and adversely affect the market liquidity of our common stock.

Table of Contents

The Financial Industry Regulatory Authority (known as "FINRA") has adopted rules that require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low priced securities will not be suitable for at least some customers. FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our common stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our shares.

Our common stock is illiquid and the price of our common stock may be negatively impacted by factors which are unrelated to our operations.

Our common stock only recently began trading on the OTC Bulletin Board ("OTCBB"), and has a limited trading history on that market. Trading on the OTCBB is frequently highly volatile, with low trading volume. Since our common stock became available for trading on the OTCBB in March 2011, we have experienced significant fluctuations in the stock price and trading volume of our common stock. There is no assurance that a sufficient market will develop in our stock, in which case it could be difficult for stockholders to sell their stock. The market price of our common stock could continue to fluctuate substantially.

Factors affecting the trading price of our common stock may include:

- adverse research and development or clinical trial results;
- our inability to obtain additional capital;
- announcement that the FDA denied our request to approve our products for commercialization in the United States, or similar denial by other regulatory bodies which make independent decisions outside the United States;
- potential negative market reaction to the terms or volume of any issuance of shares of our stock to new investors or service providers;
- sales of substantial amounts of our common stock, or the perception that substantial amounts of our common stock will be sold, by our stockholders in the public market;
- declining working capital to fund operations, or other signs of apparent financial uncertainty;
- significant advances made by competitors that adversely affect our potential market position; and
- the loss of key personnel and the inability to attract and retain additional highly-skilled personnel.

Additionally, our clinical trials will be open-ended and, therefore, there is the possibility that information regarding the success (or setbacks) of our clinical trials may be obtained by the public prior to a formal announcement by us.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable

ITEM 2. PROPERTIES

We do not own any real property. In May 2011, we entered into a one year operating lease agreement with a base annual rent of $42,000 for office space for our headquarters in San Diego, California. The lease expired on May 30, 2012. On June 1, 2012, we entered into an amendment to our lease agreement extending the lease term for a period of seven months commencing on June 1, 2012. The amendment also increases the base monthly rent to approximately $10,000.

ITEM 3. LEGAL PROCEEDINGS

In the ordinary course of business, we may become a party to lawsuits involving various matters. We are unaware of any such lawsuits presently pending against us which, individually or in the aggregate, are deemed to be material to our financial condition or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable

Table of Contents

PART II

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

Trading Information

Our common stock has been quoted on the OTC Bulletin Board (the "OTCBB") under the symbol ONCS.OB since March 2011. Prior to March 2011, our common stock traded on the OTCBB under the symbol NTVS. As soon as practicable, and assuming we satisfy all necessary initial listing requirements, we intend to apply to have our common stock listed for trading on a national securities exchange, although we cannot be certain that any application would be approved or that we will ever be able to satisfy the qualitative or quantitative listing requirements for our common stock to be listed on an exchange.

The following table sets forth the range of reported high and low closing bid quotations for our common stock for the fiscal quarters indicated as reported on the OTCBB. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

	High	Low
Fiscal 2011		
First Quarter ended October 31, 2010*	—	—
Second Quarter ended January 31, 2011*	—	—
Third Quarter ended April 30, 2011#	—	—
Fourth Quarter ended July 31, 2011	$ 1.99	$ 0.65
Fiscal 2012		
First Quarter ended October 31, 2011	$ 1.00	$ 0.31
Second Quarter ended January 31, 2012	$ 0.81	$ 0.12
Third Quarter ended April 30, 2012	$ 1.00	$ 0.18
Fourth Quarter ended July 31, 2012	$ 0.30	$ 0.15

* There was no market for our common stock during this period.
# There was no market for our common stock during portions of this period

Our common stock is thinly traded and any reported sale prices may not be a true market-based valuation of our common stock.

As of October 12, 2012, there were 38 holders of record of our common stock.

Dividends

We have never declared or paid any cash dividends or distributions on our capital stock. We currently intend to retain our future earnings, if any, to support operations and to finance expansion and therefore we do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Securities Authorized for Issuance under Equity Compensation Plans

In May 2011, our Board of Directors adopted the OncoSec Medical Incorporated 2011 Stock Incentive Plan (the "2011 Plan"), subject to stockholder approval. We obtained stockholder approval of the 2011 Plan at our March 2, 2012 annual meeting of stockholders. The 2011 Plan provides for the issuance of a variety of forms of awards, including stock options, stock appreciation rights, restricted stock and restricted stock units. The number of shares of common stock initially reserved for issuance under the 2011 Plan is five million two hundred thousand (5,200,000) shares. The following table provides information as of July 31, 2012 with respect to our equity compensation plans:

Table of Contents

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	3,185,000	$ 0.24	2,015,000
Equity compensation plans not approved by security holders	—	—	—
Total	3,185,000	$ 0.24	2,015,000

ITEM 6. SELECTED FINANCIAL DATA

Not applicable.

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

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes and other financial information appearing elsewhere in this Annual Report. Readers are also urged to carefully review and consider the various disclosures made by us which attempt to advise interested parties of the factors which affect our business, including without limitation the disclosures made in Item 1A of Part I of this Annual Report under the caption "Risk Factors".

Company Overview

We were incorporated under the laws of the State of Nevada on February 8, 2008 under the name Netventory Solutions Inc. to pursue the business of inventory management solutions. Effective March 1, 2011, we completed a merger with our subsidiary, OncoSec Medical Incorporated, a Nevada corporation which was incorporated solely to effect a change in our name. As a result, we have changed our name from "Netventory Solutions Inc." to "OncoSec Medical Incorporated". On March 1, 2011 we effected a 32 for one forward stock split of our authorized, issued and outstanding common stock. As a result, our authorized capital increased from 100,000,000 shares of common stock at $0.001 par value to 3,200,000,000 shares of common stock at $0.0001 par value, and our outstanding common stock increased from 2,140,000 shares of common stock to 68,480,000 shares of common stock as of that date. The accompanying consolidated financial statements for annual prior periods presented have been retroactively adjusted to reflect the effects of the forward stock split.

Asset Purchase Agreement

On March 24, 2011, we completed the acquisition of certain assets of Inovio Pharmaceuticals, Inc. ("Inovio") pursuant to an Asset Purchase Agreement dated March 14, 2011 by and between the Company and Inovio (the "Asset Purchase Agreement"). The acquired assets relate to certain non-DNA vaccine technology and intellectual property relating to selective tumor ablation technologies, which we now refer to as the OncoSec Medical System ("OMS"), a therapy which uses an electroporation device to facilitate delivery of chemotherapy agents, or nucleic acids encoding cytokines, into tumors and/or surrounding tissue for the treatment and diagnosis of various cancers. The acquired assets included, among other things: certain equipment, machinery, inventory and other tangible assets of Inovio related to the OMS technology; certain engineering and quality documentation related to the OMS technology; the assignment of certain contracts; and certain of Inovio's patents, including patent applications, and trademarks, and all goodwill associated therewith related to the OMS technology.

We did not assume any of the liabilities of Inovio except liabilities under the assigned contracts and assigned intellectual property arising after the closing date of the Asset Purchase Agreement. We are required to pay Inovio $3,000,000 in scheduled payments over a period of two years from the closing date and a royalty on any commercial product sales related to the OMS

Table of Contents

technology. We made our first payment upon closing of the acquisition under the Asset Purchase Agreement, using proceeds received in the

March 2011 Private Placement described below. On September 28, 2011, we entered into a First Amendment to Asset Purchase Agreement (the "First Amendment"). The First Amendment modified the payment terms of the $750,000 due to Inovio by September 24, 2011, instead requiring us to make a payment of $100,000 to Inovio on September 30, 2011, with the remaining $650,000 to be paid to Inovio at the earlier of (a) 30 days following the receipt by us of aggregate net proceeds of more than $5,000,000 from one or more financings occurring on or after September 30, 2011, or (b) March 31, 2012. On March 24, 2012, we entered into a Second Amendment to Asset Purchase Agreement (the "Second Amendment"). The Second Amendment further modified the payment terms for the $1,150,000 scheduled payments due to Inovio in March 2012 by requiring us to make a payment of $150,000 on March 31, 2012, with the remaining $1,000,000 to be paid to Inovio on December 31, 2013.

In consideration for the First Amendment we issued to Inovio a warrant to purchase 1,000,000 shares of common stock with an exercise price of $1.20 per share. In consideration for the Second Amendment, we issued to Inovio a warrant to purchase 3,000,000 shares of our common stock with an exercise price of $1.00 per share. Each of the warrants was exercisable immediately upon issuance and has an exercise term of five years. Each of the warrants also contains a mandatory exercise provision allowing us to request the exercise of the warrant in whole provided that our daily market price (as defined in the warrant) is equal to or greater than $2.40 for twenty consecutive trading days. We completed an evaluation of the warrants issued to Inovio and determined the warrants should be classified as equity within the consolidated balance sheet.

In connection with the Asset Purchase Agreement, on March 24, 2011 we entered into a cross-license agreement with Inovio pursuant to which we granted Inovio a fully paid-up, exclusive, worldwide license to certain of the OMS technology patents in the field of gene or nucleic acids, outside of those encoding cytokines, delivered by electroporation. Inovio also granted us a non-exclusive, worldwide license to certain non-OMS technology patents in the OMS field in exchange for: a fee for any sublicense of the Inovio technology, not to exceed 10%; a royalty on net sales of any business we develop with the Inovio technology, not to exceed 10%; and payment to Inovio of any amount Inovio pays to the licensor of the Inovio technology that is a direct result of the license.

Following the acquisition of the OMS technology assets from Inovio, we relocated our principal office to San Diego, California. Our business is now focused on designing, developing and commercializing innovative and proprietary medical approaches for the treatment of solid tumors that have unmet medical needs or where currently approved therapies are inadequate based on their therapeutic benefit or side-effect profile. Our therapies are based on the use of electroporation to deliver either an approved chemotherapeutic agent ("NeoPulse"), or a DNA plasmid construct that encodes for a cytokine ("ImmunoPulse") to treat solid tumors. NeoPulse and ImmunoPulse specifically target destruction of cancerous cells and not healthy normal tissues. Our goal is to improve the lives of people suffering from the life-altering effects of cancer through the development of our novel treatment approaches. We have initiated three Phase II clinical trials for the use of our therapies to treat metastatic melanoma, Merkel cell carcinoma and cutaneous T-cell lymphoma.

Private Placements

On March 18, 2011, we closed a private placement of 1,456,000 units at a purchase price of $0.75 per unit for gross proceeds of $1,092,000 (the "March 2011 Private Placement"). Each unit consists of one share of our common stock and one share purchase warrant entitling the holder to acquire one share of common stock at a price of $1.00 per share for a period of five years from the closing of the March 2011 Private Placement. The warrants were exercisable as of March 18, 2011 and any unexercised warrants will expire on March 18, 2016. We completed an evaluation of the warrants issued with this private placement and determined the warrants should be classified as equity within the consolidated balance sheet. We are not obligated to register any of the shares issued or issuable upon exercise of the warrants issued in the March 2011 Private Placement.

On June 24, 2011, we sold in a private placement an aggregate of 4,000,000 shares of our common stock and three series of warrants to purchase an aggregate of 12,000,000 shares of our common stock at a per unit purchase price of $0.75 per unit, for proceeds to us of $3.0 million (the "June 2011 Private Placement"). We also issued warrants to purchase 240,000 shares of our common stock to the co-placement agents in the offering. After deducting for fees and expenses, the aggregate net cash proceeds from the June 2011 Private Placement were approximately $2.79 million.

Pursuant to the terms of the Securities Purchase Agreement that we entered into with the purchasers in the June 2011 Private Placement, each purchaser was issued a Series A Warrant, a Series B Warrant and a Series C Warrant, each to purchase up to a number of shares of our common stock equal to 100% of the shares issued to such purchaser pursuant to the Securities Purchase Agreement. The Series A Warrants had an initial exercise price of $1.20 per share, are exercisable immediately upon issuance and have a term of five years. On February 21, 2012, the Series B and Series C Warrants expired unexercised. On March 28, 2012, the exercise price of the Series A Warrants reset to $0.50 upon the closing of the March 2012 Public Offering.

Table of Contents

March 2012 Public Offering

On March 28, 2012, we completed a registered public offering of an aggregate of 31,000,000 shares of common stock and warrants to purchase an aggregate of 31,000,000 shares of common stock at a purchase price of $0.25 per unit, for gross proceeds of $7.75 million (the "March 2012 Public Offering"). After deducting for fees and expenses, the aggregate net proceeds to us from the March 2012 Public Offering were approximately $7.2 million. The warrants issued in the offering have an exercise price of $0.35 per share, are exercisable immediately upon issuance and have a term of exercise equal to five years from the date of issuance of the warrants.

Under our placement agent agreement with Rodman & Renshaw, LLC ("Rodman"), we agreed to pay the placement agent a cash fee equal to 6% of the gross proceeds of the offering, as well as a non-accountable expense allowance equal to 1% of the gross proceeds of the offering. In addition, we agreed to issue to the placement agent warrants to purchase up to an aggregate of 5% of the aggregate number

of shares of common stock sold in the offering, or 1,550,000 shares of common stock (the "Placement Agent Warrants"). As permitted under the agreement, we elected to pay 30% of the 5% Placement Agent Warrants directly to Roth Capital Partner, LLC ("Roth"), who acted as our financial advisor in the offering, and as a result issued a warrant to purchase 1,085,000 shares of common stock to Rodman and a warrant to purchase 465,000 shares of common stock to Roth. The Placement Agent Warrants have substantially the same terms as the warrants issued to the purchasers in the offering, except that such warrants have an exercise price of $0.3125 and expire on March 23, 2017. The Placement Agent Warrants and the shares of common stock underlying the Placement Agent Warrants have not been registered. We completed an evaluation of all of the warrants issued in connection with the March 2012 Public Offering and determined the warrants should be classified as equity within the consolidated balance sheet.

As further discussed in "Liquidity and Capital Resources" below, we will need to raise additional funds in order to continue operating our business.

Critical Accounting Policies

Accounting for Long-Lived Assets / Intangible Assets

We assess the impairment of long-lived assets, consisting of property and equipment, and finite-lived intangible assets, whenever events or circumstances indicate that the carry value may not be recoverable. Examples of such circumstances include: (1) loss of legal ownership or title to an asset; (2) significant changes in our strategic business objectives and utilization of the assets; and (3) the impact of significant negative industry or economic trends.

Recoverability of assets to be held and used in operations is measured by a comparison of the carrying amount of an asset to the future net cash flows expected to be generated by the assets. The factors used to evaluate the future net cash flows, while reasonable, require a high degree of judgment and the results could vary if the actual results are materially different than the forecasts. In addition, we base useful lives and amortization or depreciation expense on our subjective estimate of the period that the assets will generate revenue or otherwise be used by us. If such assets are considered impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less selling costs.

We also periodically review the lives assigned to our intangible assets to ensure that our initial estimates do not exceed any revised estimated periods from which we expect to realize cash flows from the technologies. If a change were to occur in any of the above-mentioned factors or estimates, the likelihood of a material change in our reported results would increase.

Derivative Liabilities

In conjunction with the June 2011 private placement, we issued warrants that are accounted for as derivative liabilities (see Note 7 to our consolidated financial statements included in Item 8 of this Annual Report on Form 10-K). These derivative liabilities were determined to be ineligible for equity classification due to certain price protection and anti-dilution provisions.

These derivative liabilities were initially recorded at their estimated fair value on the date of issuance of the common stock and warrants, and are subsequently adjusted to reflect the estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded as other income or expense. The fair value of these liabilities is estimated using option pricing models that are based on the individual characteristics of the common stock, the derivative liabilities on the valuation date, probabilities related to future financings, as well as assumptions for volatility, remaining expected life, and risk-free interest rate. The option pricing models of our derivative liabilities are estimates and are sensitive to changes to inputs and assumptions used in the option pricing models.

Table of Contents

Share-Based Compensation

We grant equity-based awards under our share-based compensation plan. We estimate the fair value of share-based payment awards using the Black-Scholes option valuation model. This fair value is then amortized over the requisite service periods of the awards. The Black-Scholes option valuation model requires the input of subjective assumptions, including price volatility of the underlying stock, risk-free interest rate, dividend yield, and expected life of the option. Share-based compensation expense is based on awards ultimately expected to vest, and therefore is reduced by expected forfeitures. Changes in assumptions used under the Black-Scholes option valuation model could materially affect our net loss and net loss per share.

Results of Operations

Comparison of Fiscal Years Ended July 31, 2012 and 2011

The audited consolidated financial data for the years ended July 31, 2012 and July 31, 2011 is presented in the following table and the results of these two periods are used in the discussion thereafter.

	July 31, 2012 ($)	July 31, 2011 ($)	Increase/ (Decrease) ($)	Increase/ (Decrease) %
Revenue	—	—	—	—
Operating expenses				

Research and development	2,368,481	648,314	1,720,167	**
General and administrative	3,158,693	1,047,161	2,111,532	**
Loss from operations	(5,527,174)	(1,695,475)	3,831,699	**
Other income (expense)				
Interest expense	—	(1,357)	(1,357)	(100)
Interest expense – non-cash	(266,567)	—	266,567	100
Loss on extinguishment of debt	(761,492)	—	761,492	100
Fair value of derivative liabilities in excess of proceeds	—	(808,590)	(808,590)	(100)
Adjustments to fair value of derivative liabilities	4,192,781	(1,041,795)	5,234,576	**
Financing transaction costs	—	(210,000)	(210,000)	**
Net loss before income taxes	(2,362,452)	(3,757,217)	(1,394,765)	(37)
Income tax provision	2,400	1,600	800	50
Net loss	(2,364,852)	(3,758,817)	(1,393,965)	(37)

** Percentage increase/(decrease) is greater than 100%.

Research and Development Expenses

Prior to our acquisition of certain assets of Inovio in March 2011, we did not engage in any research and development activities during the fiscal year ended July 31, 2011. The $1,720,000 increase in research and development expenses for the year ended July 31, 2012 as compared to the year ended July 31, 2011 was mainly the result of increased salary and associated costs of $737,000, patent amortization of $683,000, contract labor and professional services of $424,000, and travel and related costs of $39,000. We expect research and development to account for a significant portion of our total expenses in the future as we continue to focus on designing and developing our therapies.

General and Administrative

The $2,112,000 increase in general and administrative expenses for the year ended July 31, 2012 as compared to the year ended July 31, 2011 was primarily the result of legal costs of $248,000 and filing fees of $62,000 associated with the June Private Placement and the Public Offering, including the preparation of our Registration Statements on Form S-1, as well as other periodic filings during that period, corporate communications costs of $604,000 consisting primarily of investor relation services as well as other general corporate matters and increased salary and associated costs of $908,000 resulting from the hiring of a new management team and staff beginning in March 2011. In addition, during the year ended July 31, 2012 we incurred board and committee fees of $209,000, accounting and audit fees of $123,000 and travel and related costs of $230,000.

Table of Contents

Other Income (Expense)

The $5,226,000 net increase in other income for the year ended July 31, 2012 as compared to the year ended July 31, 2011 was due primarily to the recording of other income of $4,193,000 in fiscal 2012 as a result of the adjustment to fair value of certain derivative liabilities through March 28, 2012. In connection with the June 2011 Private Placement, we issued warrants to purchase 240,000 shares of our common stock to the co-placement agents and warrants to purchase 12,000,000 shares of our common stock to the investors in the private placement. As more fully described in Note 7 to our consolidated financial statements, the Series A and Series C Warrants issued in connection with the June Private Placement, as well as the warrants issued to the co-placement agents, were determined to be derivative liabilities as a result of the anti-dilution provisions contained in the warrant agreements. On February 21, 2012, the Series C Warrants expired unexercised. On March 28, 2012, the anti-dilution provisions of the Series A Warrants were triggered and the exercise price of the warrants reset to $0.50. Effective March 28, 2012 the Series A Warrants qualified for equity classification and ceased to be classified as derivative liabilities.

Liquidity and Capital Resources

Working Capital

Our working capital as of July 31, 2012 and 2011 is summarized as follows:

	At July 31, 2012 ($)	At July 31, 2011 ($)
Current assets	5,493,056	2,901,593
Current liabilities	2,023,155	6,538,934
Working capital (deficiency)	3,469,900	(3,637,341)

Current Assets

The increase in our current assets was primarily due to an increase in cash from $2,458,000 as of July 31, 2011, to $5,142,000 as of July 31, 2012, as a result of approximately $7.2 million of cash received from our March 2012 Public Offering, offset by cash used in

operations during the year ended July 31, 2012.

Current Liabilities

Current liabilities at July 31, 2012 decreased to $2,023,000 from $6,539,000 as of July 31, 2011. This decrease was primarily due to the decrease in fair value of the derivative liability of $4,193,000 recorded during fiscal 2012 for the Series A and Series C Warrants issued in connection with the June 2011 Private Placement, as more fully described above and in Note 7 to our consolidated financial statements.

Cash Flow

Cash Flow Used in Operating Activities

Cash used in operating activities for the year ended July 31, 2012 was $4,219,000, as compared to $1,309,000 for the year ended July 31, 2011. This increase was related to costs of operations such as salary expense and associated costs, legal fees and professional fees, offset by a gain recorded for the fair value revaluation of the Company's derivative liabilities, as more fully described above.

Cash Flow Used in Investing Activities

Cash used in investing activities for the year ended July 31, 2012 was $55,000, as compared to $311,000 for the year ended July 31, 2011. This decrease is primarily related to the initial $250,000 payment on the Asset Purchase Agreement entered into with Inovio in fiscal year 2011.

Cash Flow Provided by Financing Activities

Cash provided by financing activities was $6,957,500 for the year ended July 31, 2012 and primarily related to cash received from the March 2012 Public Offering offset by the payment of offering costs and scheduled payments to Inovio in connection with the Asset Purchase Agreement. Cash provided by financing activities was $4,078,000 for the year ended July 31, 2011, and was primarily related to the private placements for issuance of common stock and warrants which closed in March and June 2011, which resulted in gross proceeds of $1,092,000, and $3,000,000, respectively.

Table of Contents

Recent Financings

As described above, on March 18, 2011 we issued 1,456,000 units at a price of $0.75 per unit for gross proceeds of $1,092,000. Each unit consisted of one share of our common stock and one share purchase warrant entitling the warrant holder to purchase an additional share of our common stock at a price of $1.00 per share for a period of five years from closing. We issued the units to three subscribers. We used $250,000 of the proceeds as the first payment to Inovio pursuant to the Asset Purchase Agreement and used the remaining funds for general working capital purposes.

On June 24, 2011, in the June 2011 Private Placement, we sold an aggregate of 4,000,000 shares of our common stock and issued three series of warrants, the Series A Warrants, the Series B Warrants and the Series C Warrants, to purchase an aggregate of 12,000,000 shares of the our common stock at a per unit purchase price of $0.75 per unit, for proceeds to us of $3.0 million. We paid fees and expenses of $210,000 to the co-placement agents and issued the co-placement agents warrants to purchase 240,000 shares of our common stock on terms substantially similar to the Series A Warrants. After deducting for fees and expenses, the aggregate net cash proceeds from the June 2011 Private Placement were approximately $2,790,000. The Series A Warrants currently have an exercise price of $0.50 per share, were exercisable immediately upon issuance and have a term of exercise equal to five years. On February 21, 2012, the Series B and Series C Warrants expired unexercised.

On March 28, 2012, in the March 2012 Public Offering, we sold an aggregate of 31,000,000 units, each consisting of one share of common stock and a warrant to purchase one share of common stock, at a purchase price of $0.25 per unit. The warrants have an exercise price of $0.35 per share, are exercisable immediately upon issuance and have a term of exercise equal to five years from the date of issuance. We paid fees and expenses of $542,500 and issued warrants to purchase 1,550,000 shares of our common stock on terms substantially similar to the purchaser warrants to the placement agent and a financial advisor in the March 2012 Public Offering. After deducting for fees and expenses, our aggregate net proceeds from the offering were approximately $7.2 million.

Cash Requirements

Our primary objectives for the next twelve-month period are to develop and pursue the commercialization of our planned products and to identify additional products for acquisition and development. We continuously search for industry experts to expand our management team and better position our company. In addition, we expect to pursue raising sufficient capital to fund our operations and to acquire and develop additional assets and technology consistent with our business objectives.

We estimate our operating expenses and working capital requirements for the next 12 months to be as follows:

Expense	Amount
Product development	$ 2,700,000
Employee compensation	2,000,000

General and administration	1,300,000
Professional services fees	400,000
Total	$ 6,400,000

As of July 31, 2012, we had cash and cash equivalents of approximately $5,142,000. We do not expect these funds to be sufficient to continue to operate our business through the remainder of our fiscal period ended July 31, 2013. In addition to the funds raised in the March 2011 and June 2011 Private Placements and the March 2012 Public Offering, we will require additional financing to fund our planned operations during our fiscal period ended July 31, 2013, including the continuation of our ongoing clinical trials, commercializing any assets obtained under the Asset Purchase Agreement, seeking to license or acquire new assets, and researching and developing any potential patents, the related compounds and any further intellectual property that we may acquire. We will also require additional financing to meet our remaining obligation to Inovio under the Asset Purchase Agreement, which requires that we make the following payments: (i) $500,000 September 24, 2012; (ii) $1,000,000 on March 24, 2013; and (iii) $1,000,000 December 31, 2013.

If the investors and placement agents in the June 2011 Private Placement and March 2012 Public Offering choose to exercise their remaining outstanding warrants in full on a cash basis, we would receive approximately $2 million and $11 million, respectively. However, the warrant holders may choose not to exercise any of the warrants they hold, may choose to net exercise their warrants as provided in such warrants under certain limited circumstances, or may choose to exercise only a portion of the warrants issued. The exercise prices of the outstanding warrants currently exceed the current market price of our common stock on the OTC Bulletin Board. As a result, we may never receive proceeds from the exercise of such warrants.

Table of Contents

We currently do not have committed sources of financing and may not be able to obtain a financing, particularly if the volatile conditions in the capital and financial markets, and more particularly the market for early development stage biomedical company stocks persist. Additional financing may not be available to us when needed or, if available, may not be obtained on commercially reasonable terms. If we are not able to obtain the additional financing on a timely basis, we may be forced to delay or scale down some or all of our development activities or cease the operation of our business.

Since inception we have funded our operations primarily through equity and debt financings and we expect to continue to do so in the future. If we obtain additional financing by issuing equity securities, our existing stockholders' ownership will be diluted. Obtaining commercial loans, assuming those loans would be available, will increase our liabilities and future cash commitments. We may be unable to maintain operations at a level sufficient for investors to obtain a return on their investments in our common stock. Further, we may continue to be unprofitable.

Going Concern

As of July 31, 2012, we have incurred a net loss of $6,200,728 since our inception. In their report on the annual consolidated financial statements for the fiscal year ended July 31, 2012, our independent auditors included an explanatory paragraph regarding concerns about our ability to continue as a going concern. As further discussed in Note 3 to the financial statements for the fiscal year ended July 31, 2012, during that fiscal year we incurred losses from operations, had negative working capital, and were in need of additional capital to grow our operations to become profitable. Management's plans are to continue to seek funding from our stockholders and other qualified investors in order to pursue our business plan.

We expect our cash requirements over the annual fiscal period ending July 31, 2013 to be approximately $6,400,000. During the year ended July 31, 2012, our cash outflow was approximately $5,066,000. As of July 30, 2012, we had cash and cash equivalents of $5,141,509. We will be required to make a payment of $500,000 to Inovio on September 24, 2012. We will also be obligated to make payments to Inovio of $1,000,000 on March 24, 2013 and $1,000,000 on December 31, 2013.

There is substantial doubt about our ability to continue as a going concern as the continuation of our business is dependent upon the continued support of our stockholders to aid in financing our operations. The issuance of additional equity securities by us could result in a significant dilution in the equity interests of our current stockholders. Obtaining commercial loans, assuming those loans would be available, will increase our liabilities and future cash commitments.

Off-Balance Sheet Arrangements

We have no significant off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to stockholders.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Not applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements required by this item are set forth at the end of this Report beginning on page 43 and are incorporated herein by reference. We are not required to provide the supplementary data required by this item as we are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act.

Table of Contents

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934 (the "Exchange Act") is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is accumulated and communicated to management to allow timely decisions regarding required disclosure.

As required by Rule 13a-15(b) under the Exchange Act, our management, with the participation of our principal executive officer and our principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of July 31, 2012. The evaluation took into consideration the various changes in controls and remediation measures that the Company had undertaken prior to July 31, 2012 to address material weaknesses in internal control over financial reporting that were identified and reported in the Company's Annual Report on Form 10-K for the fiscal year ended July 31, 2011 and subsequent Quarterly Reports on Form 10-Q. Based on this evaluation, our principal executive officer and our principal financial officer concluded that, as of July 31, 2012, our disclosure controls and procedures were effective to ensure that the information required to be disclosed by our company in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision of our principal executive officer and our principal financial officer we conducted an evaluation of the effectiveness of our internal control over financial reporting as of July 31, 2012 using the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). This evaluation included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. Based on this evaluation, our management concluded the control deficiencies identified in previous reporting periods as noted above had been remediated, and our internal controls over financial reporting were effective as at July 31, 2012.

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within our 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.

This Annual Report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit us to provide only management's report in this Annual Report.

Table of Contents

Changes in Internal Control Over Financial Reporting

In our assessment of the effectiveness of our internal control over financial reporting as of July 31, 2011, we determined that there were control deficiencies that constituted material weaknesses, including: (1) ineffective controls over period end financial disclosures and reporting processes; and (2) inadequate segregation of duties. During the quarter ended July 31, 2012 we completed our evaluation of our remediation efforts in fiscal 2012 and concluded that all of our identified material weaknesses have been remediated as of July 31, 2012. During the fourth quarter ended July 31, 2012, we undertook and/or evaluated the following remediation efforts related to such material weaknesses:

Ineffective controls over period end financial disclosures and reporting processes;

- Designed and implemented a monthly and quarterly close process to ensure all necessary journal entries were recorded and all material account reconciliations were performed;
- Designed and implemented monthly and quarterly variance analysis procedures whereby consolidated financial statement accounts are compared to the prior period consolidated financial statement accounts and reviewed for any unusual or inappropriate transactions or variances;

- Implemented preventative controls designed to enhance the review of our periodic financial statement filings in order to ensure their completeness and accuracy.

Inadequate segregation of duties.

- Designed and implemented the controls related to ensuring appropriate segregation of duties amongst key accounting personnel throughout our financial statement process, including the processing of journal entries and our monthly close process;

- Hired accounting personnel with significant experience in U.S. GAAP and Sarbanes-Oxley compliance for publicly-traded operating companies. A significant focus for the new accounting personnel has been to provide additional focus to the remediation plans for our internal control over financial reporting;

- Designed and implemented our controls surrounding the recording, approval and payment to vendors and employees.

Other than as described above, there has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the fourth quarter of fiscal 2012 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Set forth below is certain information regarding our directors and executive officers as of July 31, 2012:

Name	Position	Age	Director / Officer Since
Avtar Dhillon, M.D. (2)(3)(4)(5)	Chairman and Director	51	March 10, 2011
James DeMesa, M.D. (1)(2)(3)	Director	54	February 3, 2011
Anthony Maida, III, Ph.D (1)(3)(4)	Director	60	June 21, 2011
Punit Dhillon	President, Chief Executive Officer and Director	32	March 10, 2011
Veronica Vallejo	Vice President, Finance, and Controller	39	March 10, 2011

(1) Member of Audit Committee
(2) Member of Compensation Committee
(3) Member of Nominating and Corporate Governance Committee
(4) Member of Clinical and Regulatory Affairs Committee
(5) Member of Financing Committee

Business Experience

The following is a brief account of the education and business experience of our directors and executive officers during at least the past five years, indicating their principal occupation during the period, and the name and principal business of the organization by which they were employed.

Table of Contents

Avtar Dhillon, M.D., Chairman and Director

Dr. Dhillon served as President and Chief Executive Officer of Inovio Pharmaceuticals, Inc. (formerly Inovio Biomedical Corporation) (NYSE Amex: INO) from October 2001 to June 2009, as President and Chairman of Inovio from June 2009 until October 2009, and as Executive Chairman since October 2009. During his tenure at Inovio, Dr. Dhillon led the successful turnaround of the company through a restructuring, acquisition of technology from several European and North American companies, and a merger with VGX Pharmaceuticals to develop a vertically integrated DNA vaccine development company with one of the strongest development pipelines in the industry. Dr. Dhillon led nine successful financings, raising over $136 million for Inovio and concluded several licensing deals valued at over $200 million that included global giants, Merck and Wyeth (now Pfizer). Prior to joining Inovio, Dr. Dhillon was vice president of MDS Capital Corp. (now Lumira Capital Corp.), one of North America's leading healthcare venture capital organizations. In July 1989, Dr. Dhillon started a medical clinic and subsequently practiced family medicine for over 12 years. Dr. Dhillon has been instrumental in successfully turning around struggling companies and influential as an active member in the biotech community. From March 1997 to July 1998, Dr. Dhillon was a consultant to CardiomePharma Corp. ("Cardiome"), a biotechnology company listed on the Toronto Stock Exchange and NASDAQ. While at Cardiome, Dr. Dhillon led a turnaround based on three pivotal financings, establishing a clinical development strategy, and procuring a new management team. In his role as a founder and board member of companies, Dr. Dhillon has been involved in several early stage healthcare focused companies listed on the Toronto Stock Exchange and TSX Venture Exchange, which have successfully matured through advances in their development pipeline and subsequent M&A transactions. Most recently, he was a

founding board member (May 2003) of Protox Therapeutics, Inc., a publicly traded specialty pharmaceutical company. Dr. Dhillon maintained his board position until the execution of a financing of up to $35 million with Warburg Pincus in November 2010. Dr. Dhillon currently sits on the Board of Directors of BC Advantage Funds, the largest venture capital corporation in British Columbia. Dr. Dhillon was also a member of the Securities Practice Advisory Committee to the British Columbia Securities Commission from July 1998 to September 2001. From May 2003 to April 2010, Dr. Dhillon was also a director of Auricle Biomedical, a publicly traded capital pool company. Dr. Dhillon has a Bachelor of Science with honors in Human Physiology, and an M.D. from the University of British Columbia. Dr. Dhillon plays a key role on our Board of Directors because of his extensive experience with pharmaceutical and biotech companies, including during his tenure at Inovio.

James M. DeMesa, M.D., Director

Dr. DeMesa has been a practicing physician and has served as a senior executive with several international pharmaceutical and biotech companies in the areas of corporate management, regulatory affairs, and pre-clinical and clinical pharmaceutical and medical device product development. Most recently, in August 2008, Dr. DeMesa retired from his role as President, Chief Executive Officer and a director of Migenix Inc. ("Migenix"), a public biotechnology company focused on infectious and neurodegenerative diseases. From 1997 to 2001, he was President, Chief Executive Officer and a director of GenSci Regeneration Sciences Inc., a public biotech company involved in the field known as orthobiologics, which is the use of biotechnology to treat musculoskeletal disease and injury. From 1992 to 1997, he was Vice President, Medical and Regulatory Affairs at Biodynamics International, Inc., and from 1989 to 1992 was Vice President, Medical and Regulatory Affairs of Bentley Pharmaceuticals. Dr. DeMesa is a co-founder of CommGeniX, a medical communications company, and MedXcel, a medical education company. Dr. DeMesa is a member of the Board of Directors of Stem Cell Therapeutics, a public biotechnology company based in Toronto, and is Executive Director of Induce Biologics, a private Toronto-based biotechnology company. Dr. DeMesa attended the University of South Florida where he received his B.A. (Chemistry), M.D. and M.B.A. degrees and did his medical residency at the University of North Carolina. He is the author of two books and speaks regularly to companies and organizations throughout North America. Dr. DeMesa provides the Board with extensive experience with pharmaceutical and biotechnology companies.

Anthony Maida, III, Ph.D, MA, MBA, Director

On June 21, 2011, Dr. Maida joined our Board of Directors. Dr. Maida has served as a director on the Board of Directors of Spectrum Pharmaceuticals, Inc. since December 2003 and currently serves as the Chair of its Audit Committee and a member of its Compensation Committee, Placement Committee, Nominating and Corporate Governance Committee and Product Acquisition Committee. He is currently Chief Operating Officer at Northwest Biotherapeutics, Inc., a company focused on the development of therapeutic DC cell based vaccines to treat patients with cancer. Dr. Maida has been the acting Chairman of Dendri Therapeutics, Inc., a startup company focused on the clinical development of therapeutic vaccines for patients with cancer, since 2003. He has served as Chairman, Founder and Director of BioConsul Drug Development Corporation and as Principal of Anthony Maida Consulting International since 1999, providing consulting services to large and small biopharmaceutical firms in the clinical development of oncology products and product acquisitions and to venture capital firms evaluating life science investment opportunities. Recently Dr. Maida was Vice President of Clinical Research and General Manager, Oncology, world-wide for PharmaNet, Inc. He served as the President and Chief Executive Officer of Replicon NeuroTherapeutics, Inc., a biopharmaceutical company focused on the therapy of patients with tumors (both primary and metastatic) of the central nervous system, where he successfully raised financing from both venture capital and strategic investors and was responsible for all financial and operational aspects of the company, from June 2001 to July 2003. From 1999 to 2001, he held positions as Interim Chief Executive Officer for

Table of Contents

Trellis Bioscience, Inc., a privately held biotechnology company that addresses high clinical stage failure rates in pharmaceutical development, and President of CancerVax Corporation, a biotechnology company dedicated to the treatment of cancer. From 1992 until 1999, Dr. Maida served as President and CEO of Jenner Biotherapies, Inc., a biopharmaceutical company. From 1980 to 1992, he held senior management positions with various companies including Vice President Finance and Chief Financial Officer of Data Plan, Inc., a wholly owned subsidiary of Lockheed Corporation. Dr. Maida serves or has served as a consultant and technical analyst for several investment firms, including CMX Capital, LLC, Sagamore Bioventures, Roaring Fork Capital, North Sound Capital, The Bonnie J. Addario Lung Cancer Foundation and Pediaric BioScience, Inc. Additionally, he has been retained by Abraxis BioScience, Inc., Northwest Biotherapeutics, Inc., Takeda Chemical Industries, Ltd. (Osaka, Japan), and Toucan Capital to conduct corporate and technical due diligence on investment opportunities. Dr. Maida formerly served as a member of the board of directors of Sirion Therapeutics, Inc., a privately held ophthalmic-focused company, and GlycoMetrix, Inc., a startup company focused on the development of tests to identify carbohydrates that can indicate cancer. He is a speaker at industry conferences and is a member of the American Society of Clinical Oncology, the American Association for Cancer Research, the Society of Neuro-Oncology and the International Society for Biological Therapy of Cancer. Dr. Maida received a B.A. in History from Santa Clara University in 1975, a B.A. in Biology from San Jose State University in 1977, an M.B.A. from Santa Clara University in 1978, an M.A. in Toxicology from San Jose State University in 1986 and a Ph.D. in Immunology from the University of California in 2010. Dr. Maida brings to the Board extensive experience in our industry and significant expertise in clinical development and clinical trials. We believe that his financial and operational experience in our industry will provide important resources to our Board.

Punit Dhillon, Director, President, Chief Executive Officer and Director

On March 10, 2011, Mr. Punit Dhillon was appointed Chief Executive Officer. Mr. Dhillon was formerly Vice President of Finance and Operations at Inovio until March 2011. In his corporate finance role, Mr. Dhillon was pivotal to the company raising over $125 million through multiple financings and several licensing deals including early stage deals with Merck and Wyeth. Mr. Dhillon was responsible for implementation of Inovio's corporate strategy, including achievement of annual budgets and milestones. He was also instrumental to the successful in-licensing of key intellectual property and a number of corporate transactions, including the acquisition and

consolidation of Inovio AS, a Norwegian DNA delivery company, and the recent merger with VGX Pharmaceuticals ("VGX"), which solidified Inovio's position in the DNA vaccine industry. Mr. Dhillon has played an effective role as head of operations for Inovio. He recently completed the integration of the VGX with Inovio, including achieving cost-cutting of over 30% through the synergy assessment of both companies, consolidating four operating locations to two bi-coastal offices, and managing the existing shareholders from both companies. Mr. Dhillon was a director of Auricle Biomedical, a capital pool company, from July 2007 to April 2010. Mr. Dhillon has also been a consultant and board member for several TSX Venture Exchange listed early stage life science companies which matured through advances in their development pipelines and subsequent M&A transactions. Most recently, Mr. Dhillon was involved in the completion of a trilateral merger between three Capital Pool Companies listed on the TSX Venture Exchange, which completed a qualifying transaction in April 2010 with a company specializing in conservation and demand management accessories for the utilities industry. Prior to joining Inovio, Mr. Dhillon worked for a corporate finance law firm as a law clerk. Since September 1999 to July 2002, he worked with MDS Capital Corp. (now Lumira Capital Corp.) as an intern analyst. Mr. Dhillon is an active member in his community and co-founder of Inbalance Network Inc. an organization focused on promoting an active lifestyle and grass roots community involvement, including scholarships to support students pursuing post-secondary education. Mr. Dhillon has a Bachelor of Arts with honors in Political Science and a minor in Business Administration from Simon Fraser University. Mr. Dhillon's in depth knowledge of our business and operations as our Chief Executive Officer, his experience in the biotechnology and pharmaceutical industry, and his experience with publicly traded companies, position him well to serve as a member of our Board of Directors.

Veronica Vallejo, Vice President, Finance, and Controller

On March 10, 2011 Veronica Vallejo was appointed Secretary and Treasurer, and serves as Controller and Principal Financial Officer of OncoSec Medical Incorporated. As of June 30, 2011, Ms. Vallejo also serves as our Vice President, Finance. Ms. Vallejo joined the Company in February of 2011. Prior to working for us, Ms. Vallejo had worked in public accounting since 1997, most recently working as a Senior Manager with Mayer Hoffman McCann P.C., from January 2001 to December 2010. Ms. Vallejo holds a B.S. in Business Administration with an emphasis in accounting from San Diego State University. She is a certified public accountant and a member of the American Institute of Certified Public Accountants.

Term of Office

Our directors are elected at each annual meeting of stockholders and serve until the next annual meeting of stockholders or until their successor has been duly elected and qualified, or until their earlier death, resignation or removal.

Table of Contents

Committees of the Board of Directors

On June 30, 2011, our Board of Directors established an Audit Committee, a Compensation Committee, a Nominating and Corporate Governance Committee, a Clinical and Regulatory Affairs Committee and a Financing Committee, each of which has the composition and responsibilities described below.

Audit Committee

The Audit Committee of our Board of Directors consists of Dr. Anthony Maida and Dr. James DeMesa, with Dr. Maida serving as Chairman. Our Board of Directors has determined that each of the members of our Audit Committee is independent within the meaning of applicable Securities and Exchange Commission rules and Rule 803B of the NYSE Amex LLC Company Guide, and has determined that Dr. Maida is an audit committee financial expert, as such term is defined in the rules and regulations of the Securities and Exchange Commission, and is financially sophisticated within the meaning of Rule 803B of the NYSE Amex LLC Company Guide. The Audit Committee has oversight responsibilities regarding, among other things: the preparation of our financial statements and our financial reporting and disclosure processes; the administration, maintenance and review of our system of internal controls regarding accounting compliance; our practices and processes relating to internal audits of our financial statements; the appointment of our independent registered public accounting firm and the review of its qualifications and independence; the review of reports, written statements and letters from our independent registered public accounting firm; and our compliance with legal and regulatory requirements in connection with the foregoing. Our Board of Directors has adopted a written charter for our Audit Committee, which is available on our website, www.oncosec.com.

Compensation Committee

The Compensation Committee of our Board of Directors consists of Dr. Avtar Dhillon and Dr. James DeMesa, with Dr. Dhillon serving as Chairman. Our Board of Directors has also determined that each of the members of our Compensation Committee is independent within the meaning of applicable Securities and Exchange Commission rules and Rule 803A of the NYSE Amex LLC Company Guide. The duties of our Compensation Committee include, without limitation: reviewing, approving and administering compensation programs and arrangements to ensure that they are effective in attracting and retaining key employees and reinforcing business strategies and objectives; determining the objectives of our executive officer compensation programs and the specific objectives relating to CEO compensation, including evaluating the performance of the CEO in light of those objectives; approving the compensation of our other executive officers and our directors; administering our as-in-effect incentive-compensation and equity-based plans; and producing an annual report on executive officer compensation for inclusion in our proxy statement, when required and in accordance with applicable rules and regulations. Our Board of Directors has adopted a written charter for our Compensation Committee, which is available on our website, www.oncosec.com.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of our Board of Directors consists of Dr. James DeMesa, Dr. Avtar

Dhillon and Dr. Anthony Maida, with Dr. DeMesa serving as Chairman. Our Board of Directors has also determined that each of the members of our Nominating and Corporate Governance Committee is independent within the meaning of applicable Securities and Exchange Commission rules and Rule 803A of the NYSE Amex LLC Company Guide. The responsibilities of the Nominating and Corporate Governance Committee include, without limitation: assisting in the identification of nominees for election to our Board of Directors, consistent with approved qualifications and criteria; determining the composition of the Board of Directors and its committees; recommending to the Board of Directors the director nominees for the annual meeting of stockholders; establishing and monitoring a process of assessing the effectiveness of the Board of Directors; developing and overseeing a set of corporate governance guidelines and procedures; and overseeing the evaluation of our directors and executive officers. Our Board of Directors has adopted a written charter for our Nominating and Corporate Governance Committee, which is available on our website, www.oncosec.com.

Clinical and Regulatory Affairs Committee

The Clinical and Regulatory Affairs Committee of our Board of Directors consists of Dr. Anthony Maida and Dr. Avtar Dhillon, with Dr. Maida serving as Chairman. The Clinical and Regulatory Affairs Committee does not currently have a charter. The Clinical and Regulatory Affairs Committee has responsibilities relating to reviewing and providing comments on the clinical development plan for our OMS ElectroOncology programs, including introducing the clinical team to established opinion leaders, potential doctors and investigators, regulatory contacts and other professionals in the clinical oncology field that could benefit us in executing our development plan.

Table of Contents

Financing Committee

Dr. Avtar Dhillon is the Chairman and sole member of our Financing Committee. The Financing Committee does not currently have a charter. The Financing Committee has responsibilities relating to our efforts to obtain adequate funding to finance our development programs and operations.

Family Relationships

Mr. Punit Dhillon, director, President and Chief Executive Officer, is the nephew of Dr. Avtar Dhillon, a director and our Chairman of the Board. No other family relationships exist between any of the directors or executive officers of our company.

Section 16 Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our executive officers, directors and persons who beneficially own more than 10% of our common stock to file initial reports of ownership and reports of changes in ownership with the SEC. Such persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms filed by such person.

Based solely on our review of such forms furnished to us and written representations from such reporting persons, we believe that all filing requirements applicable to our executive officers, directors and more than 10% stockholders were met in a timely manner.

Code of Business Conduct and Ethics

Our Board has adopted a Code of Business Conduct and Ethics that applies to all of our directors, officers and employees. The Code of Business Conduct and Ethics is available for review on our website at www.oncosec.com, and is also available in print, without charge, to any stockholder who requests a copy by writing to us at OncoSec Medical Incorporated, 4690 Executive Drive, Suite 250, San Diego, CA 92121, Attention: Investor Relations. Each of our directors, employees and officers, including our Chief Executive Officer and Principal Financial Officer, and all of our other executive officers, are required to comply with the Code of Business Conduct and Ethics. There have not been any waivers of the Code of Business Conduct and Ethics relating to any of our executive officers or directors in the past year.

Corporate Governance Documents

Our corporate governance documents, including the Audit Committee Charter, Compensation Committee Charter, Nominating and Corporate Governance Committee Charter are available, free of charge, on our website at www.oncosec.com. Please note, however, that the information contained on the website is not incorporated by reference in, or considered part of, this Form 10-K. We will also provide copies of these documents, free of charge, to any stockholder upon written request to OncoSec Medical Incorporated, 4690 Executive Drive, Suite 250, San Diego, CA 92121, Attention: Investor Relations.

Table of Contents

ITEM 11. EXECUTIVE COMPENSATION

The following table summarizes all compensation recorded by us in each of the fiscal years ended July 31, 2012 and July 31, 2011 for (i) our principal executive officer, (ii) our principal financial officer, (iii) our former next most highly compensated executive officer whose total compensation exceeded $100,000 in fiscal year 2012:

Summary Compensation Table

Name	Fiscal Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($) (5)	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Punit Dhillon, President & CEO (1)	2012	$ 247,500	—	—	34,699	—	—	—	$ 282,199
	2011	$ 90,000	—	—	—	—	—	—	$ 90,000
Dr. Michael Cross, CBO (2)(4)	2012	$ 185,449	—	—	—	—	—	$ 62,150	$ 247,599
	2011	$ 100,833	—	—	—	—	—	$ 3,700	$ 104,533
Veronica Vallejo, VP Finance and Controller (3)	2012	$ 165,000	—	—	10,410	—	—	—	S 175,410
	2011	$ 65,833	—	—	—	—	—	—	$ 65,833

(1) Mr. Dhillon was appointed our President and Chief Executive Officer on March 10, 2011.
(2) Dr. Cross was appointed our Chief Business Officer on March 10, 2011. Dr. Cross' employment terminated on April 26, 2012. Severance compensation paid in 2012 of $55,000 is included as part of "Other Compensation".
(3) Ms. Vallejo was appointed our Secretary and Treasurer on March 10, 2011. Ms. Vallejo is also our Principal Financial Officer.
(4) Amounts under the "All Other Compensation" column consist of company-paid auto, housing allowances and severance payments.
(5) The values listed in the above table represent the fair value of the option grants that was recognized during fiscal 2012 under Topic ASC 718 and is calculated as of the grant date using a Black-Scholes option-pricing model. For information on the valuation assumptions with respect to the grants made during fiscal 2012, refer to Note 9 "Stock-Based Compensation" in OncoSec's financial statements for the fiscal year ended July 31, 2012, included in this filing.

Outstanding Equity Awards At Fiscal Year-End

The following table summarizes the aggregate number of option awards held by our named executive officers at July 31, 2012.

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date
Punit Dhillon	165,000	335,000	—	$ 0.21	4/25/22
Michael Cross	—	—	—	—	—
Veronica Vallejo	49,500	100,500	—	$ 0.21	4/25/22

(1) Mr. Dhillon was issued an option to purchase 500,000 shares of common stock on April 25, 2012. The option vests on the following schedule: 33% upon grant, 33% one year anniversary of grant date, 34% two year anniversary of grant date.
(2) Ms. Vallejo's was issued an option to purchase 150,000 shares of common stock on April 25, 2012. The option vests on the following schedule: 33% upon grant, 33% one year anniversary of grant date, 34% two year anniversary of grant date.

Table of Contents

Employment Agreements

Punit Dhillon

On May 18, 2011, we entered into an Employment Agreement with our current President and Chief Executive Officer, Mr. Punit Dhillon. The Employment Agreement provides for the following, among other things: (a) a base annual salary of $240,000; (b) eligibility to receive an annual bonus at the discretion of the Board of Directors; (c) eligibility to participate in the Company's stock incentive program at the discretion of the Board of Directors; (d) acceleration of vesting of any unvested stock options outstanding upon a change of control of the Company; (e) if Mr. Dhillon is terminated other than for cause, death or disability, or if he terminates his employment with the Company for good reason, Mr. Dhillon is entitled to receive (i) severance payments equal to 24 months of his base salary, (ii) a pro rata percentage of the annual bonus he had received the prior fiscal year and (iii) payment of health benefits for 24 months, conditioned on his execution of a release; and (f) if Mr. Dhillon's employment is terminated for death or disability, he or his estate is entitled to receive a pro rata percentage of the annual bonus he had received for the prior fiscal year. The Employment Agreement has an initial term of five years.

The term "good reason" is defined to mean termination by Mr. Dhillon following the occurrence of any of the following events without Mr. Dhillon's consent: (a) Mr. Dhillon ceases to report to the Board of Directors, provided that such change in reporting relationship results in a material reduction in his authority, duties or responsibilities; or (b) any other material reduction in his duties, authority or responsibilities relative to those in effect immediately prior to the reduction.

On April 25, 2012, our Board of Directors approved an increase in Mr. Dhillon's base salary to $270,000.

On April 25, 2012, the Company granted to Mr. Dhillon an option to purchase up to 500,000 shares of common stock at an exercise price of $0.21 per share under the 2011 Plan. The option vests over a two year period, with 33% vesting immediately upon issuance, 33% vesting on the one year anniversary of the grant date and 34% vesting on the two year anniversary of the grant date. The option may vest immediately upon a corporate transaction or change in control, as defined in the 2011 Plan.

Michael Cross

On May 18, 2011, we entered into an Employment Agreement with our Chief Business Officer, Dr. Michael Cross. The Employment Agreement with Dr. Cross provides for the following, among other things: (a) a base annual salary of $220,000; (b) eligibility to receive an annual bonus at the discretion of the Board of Directors; (c) eligibility to participate in the Company's stock incentive program at the discretion of the Board of Directors; (d) acceleration of vesting of any unvested stock options outstanding upon a change of control of the Company; (e) if Dr. Cross is terminated other than for cause, death or disability, or if he terminates his employment with the Company for good reason, Dr. Cross is entitled to receive (i) severance payments equal to 12 months of his base salary, (ii) a pro rata percentage of the annual bonus he had received the prior fiscal year and (iii) payment of health benefits for 12 months, conditioned on his execution of a release; and (f) if Dr. Cross's employment is terminated for death or disability, he or his estate is entitled to receive a pro rata percentage of the annual bonus he had received for the prior fiscal year. Under the Employment Agreement, Dr. Cross may perform his duties from his current location in Ontario, Canada for 12 months following the effective date of the Employment Agreement. If the Company satisfies certain financial conditions as of April 30, 2012 (as provided in the Company's Form 10-Q for the quarter ending April 30, 2012), Dr. Cross must relocate to the Company's headquarters in San Diego, California. The Employment Agreement has an initial term of five years.

The term "good reason" is defined to mean termination by Dr. Cross following the occurrence of any of the following events without Dr. Cross's consent: (a) Dr. Cross ceases to report to the Chief Executive Officer or the Board of Directors, provided that such change in reporting relationship results in a material reduction in his authority, duties or responsibilities; (b) any other material reduction in his duties, authority or responsibilities relative to those in effect immediately prior to the reduction; or (c) following Dr. Cross's relocation to San Diego, California, the relocation of Dr. Cross's place of employment more than 50 miles from the Company's current location in San Diego, California.

Dr. Cross's employment with us terminated effective April 26, 2012. In connection with such termination and in accordance with the terms of his employment agreement, we recorded a $220,000 severance liability payable to Dr. Cross.

Veronica Vallejo

On May 18, 2011, we entered into an Employment Agreement with our Vice President, Finance and Controller, Ms. Veronica Vallejo. The Employment Agreement provides for the following, among other things: (a) a base annual salary of $140,000; (b) eligibility to receive an annual bonus at the discretion of the Board of Directors; (c) eligibility to participate in the Company's stock incentive program at the discretion of the Board of Directors; (d) acceleration of vesting of any unvested stock options outstanding upon a change of control of the Company; (e) if Ms. Vallejo is terminated other than for cause, death or disability,

Table of Contents

or if she terminates her employment with the Company for good reason, she is entitled to receive (i) severance payments equal to six months of her base salary, (ii) a pro rata percentage of the annual bonus she had received the prior fiscal year and (iii) payment of health benefits for six months, conditioned on her execution of a release; and (f) if Ms. Vallejo's employment is terminated for death or disability, she or her estate is entitled to receive a pro rata percentage of the annual bonus she had received for the prior fiscal year. The Employment Agreement has an initial term of five years.

The term "good reason" is defined to mean termination by Ms. Vallejo following the occurrence of any of the following events without Ms. Vallejo's consent: (a) Ms. Vallejo ceases to report directly to the President and Chief Executive Officer or the Board of Directors, provided that such change in reporting relationship results in a material reduction in her authority, duties or responsibilities; or (b) any other material reduction in her duties, authority or responsibilities relative to those in effect immediately prior to the reduction.

On June 30, 2011, our Board of Directors approved the promotion of Ms. Vallejo to Vice President, Finance, and a commensurate increase in her base annual salary to $160,000. On April 25, 2012, our Board of Directors approved an increase in Ms. Vallejo's base salary to $180,000.

On April 25, 2012, the Company granted to Ms. Vallejo an option to purchase up to 150,000 shares of common stock at an exercise price of $0.21 per share under the 2011 Plan. The option vests over a two year period, with 33% vesting immediately upon issuance, 33% vesting on the one year anniversary of the grant date and 34% vesting on the two year anniversary of the grant date. The option may vest immediately upon a corporate transaction or change in control, as defined in the 2011 Plan.

Compensation of Directors

Our directors received no fees for their service as directors during the fiscal years ended July 31, 2010 and July 31, 2009. All directors received reimbursement for reasonable out-of-pocket expenses in attending Board of Directors meetings and for promoting our business.

On June 30, 2011, the Board of Directors adopted a new director compensation policy for non-employee directors. According to such policy, the Chairman of our Board of Directors receives an annual fee of $30,000 and all other independent directors receive an annual fee of $15,000 for membership on the Board of Directors. In addition, non-employee directors will receive the following compensation for service on the committees of the Board of Directors beginning August 1, 2011:

- The Chairman of the Audit Committee will receive $12,000 per year and each member of the Audit Committee will receive $6,000 per year;
- The Chairman of the Compensation Committee will receive $8,000 per year and each member of our Compensation Committee will receive $4,000 per year;
- The Chairman of our Nominating and Corporate Governance Committee will receive $6,000 per year and each member of the committee will receive $3,000 per year; and
- In recognition of the significant contributions expected of the members of our Clinical and Regulatory Affairs Committee and our Financing Committee, each member of the Clinical and Regulatory Affairs Committee will receive $20,000 per year and each member of our Financing Committee will receive $40,000 per year.

Additionally, members of all of our committees receive a fee of $1,500 for each committee meeting attended in person and $750 for each committee meeting attended telephonically.

The following table summarizes all compensation paid to our non-employee directors during the fiscal year ended July 31, 2012:

Table of Contents

Director Compensation Table

Name	Fees Earned or Paid In Cash ($)	Stock Awards ($)	Option Awards ($)(4)	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings ($)	All other Compensation ($)	Total ($)
Dr. Avtar Dhillon (1)	$ 110,000	—	8,158	—	—	—	$ 118,158
Dr. Anthony Maida (2)	$ 60,000	—	35,948	—	—	—	$ 95,948
Dr. James DeMesa (3)	$ 39,250	—	8,158	—	—	—	$ 47,408

(1) On April 25, 2012, Dr. Dhillon was granted an option to purchase 100,000 shares of common stock with an exercise price of $0.21 and a ten year term. The option vests over a one year period, as follows: 25% of the date of grant, and 25% quarterly thereafter.

(2) On April 25, 2012, Dr. Maida was granted an option to purchase 100,000 shares of common stock with an exercise price of $0.21 and a ten year term. The option vests over a one year period, as follows: 25% of the date of grant, and 25% quarterly thereafter. On September 27, 2011, Dr. Maida was granted an option to purchase 100,000 shares of common stock with an exercise price of $0.40 and a ten year term. The option vests over a one year period, as follows: 25% of the date of grant, and 25% quarterly thereafter.

(3) On April 25, 2012, Dr. De Mesa was granted an option to purchase 100,000 shares of common stock with an exercise price of $0.21 and a ten year term. The option vests over a one year period, as follows: 25% of the date of grant, and 25% quarterly thereafter.

(4) Reflects the dollar amount of the grant date fair value of awards granted during the fiscal year, measured in accordance with Accounting Standards Codification Topic 718 and without adjustment for estimated forfeitures. The assumptions used in the calculations for these amounts are described in Note 9 “Stock-Based Compensation” in the Company’s Form 10-K for the fiscal year ended July 31, 2012, included in this filing.

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

The following table sets forth certain information regarding the beneficial ownership of our common stock by (i) each person who, to our knowledge, owns more than 5% of our common stock, (ii) each of our directors and executive officers, and (iii) all of our executive officers and directors as a group. Unless otherwise indicated in the footnotes to the following table, the address of each person named in the table is: c/o OncoSec Medical Incorporated, 4690 Executive Drive Suite #250, San Diego, CA 92121. Shares of our common stock subject to options, warrants, or other rights currently exercisable or exercisable within 60 days of October 12, 2012, are deemed to be beneficially owned and outstanding for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not deemed outstanding for computing the percentage of any other person.

	Number of Shares	Percentage

Name of Beneficial Owner	Shares Beneficially Owned	Percentage Beneficially Owned (1)
Directors and Named Executive Officers:		
Avtar Dhillon (2)	9,960,480	11.3%
Punit Dhillon (3) (4)	4,560,667	5.2%
Anthony Maida (5)	150,000	*
James DeMesa (2)	300,000	*
Veronica Vallejo (2)	250,000	*
Current Directors and Executive Officers as a Group (5 persons)	15,221,147	17.3%

*Less than 1%

(1) Based on 87,856,000 shares of our common stock issued and outstanding as of October 12, 2012. Except as otherwise indicated, we believe that the beneficial owners of the common stock listed above, based on information furnished by such owners, have sole investment and voting power with respect to such shares, subject to community property laws where applicable. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities.
(2) Includes 49,500 shares of common stock issuable upon exercise of options exercisable within 60 days of October 12, 2012.
(3) Includes 120,000 shares held by Inbalance Network Inc., and 25,000 shares held by Four Front Investments. Mr. Dhillon is a stockholder and managing partner of Inbalance Network, Inc. and Four Front Investments. Also included are 607,000 shares held by the spouse of Mr. Dhillon.
(4) Includes 165,000 shares of common stock issuable upon exercise of options exercisable within 60 days of October 12, 2012.
(5) Includes 150,000 shares of common stock issuable upon exercise of options exercisable within 60 days of October 12, 2012.

Table of Contents

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

Transactions with Related Persons

Other than as described below, since February 8, 2008, there have been no transactions, or currently proposed transactions, in which we were or are to be a participant and the amount involved exceeds the lesser of $120,000 or one percent of the average of our total assets at year end for the last two completed fiscal years and in which any related person had or will have a direct or indirect material interest.

On February 11, 2011, we entered into a promissory note arrangement with Poma Management S.A. in the amount of $120,000. Our former director and chief executive officer and a former holder of over 5% of our common stock, Ronald Dela Cruz, is affiliated with Poma Management S.A. The promissory note bore interest at a rate of 10% annually. We made full payment on this promissory note on March 18, 2011.

Mr. Dela Cruz also loaned us an amount of $33,867 to fund operations, which did not include interest terms. On March 18, 2011, we made full payment on this loan.

Director Independence

We are not currently listed on any national securities exchange that has a requirement that the Board of Directors be independent. However, our Board of Directors has determined that all of the current members of our Board of Directors would be considered independent under Rule 803A of the NYSE Amex LLC Company Guide as applied to directors and to members of audit, nominating and corporate governance and compensation committees of the Board of Directors, except that Punit Dhillon would not be considered independent because he is our President and Chief Executive Officer.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table presents the aggregate fees agreed to by the Company for the annual audits for the fiscal years ended July 31, 2012 and 2011, and all other fees paid for us for services rendered by Mayer Hoffman McCann P.C. during 2011 and 2012, as well as all other fees paid by us for services rendered by Silberstein Ungar, PLLC during 2011 and 2012:

	2012	2011
Audit Fees — Mayer Hoffman McCann P.C.	$ 116,800	$ 60,000
Audit Fees — Silberstein Ungar, PLLC	2,000	6,750
Audit Related Fees	—	—
Tax Fees	—	—
All Other Fees	3,500	—
Total	$ 122,300	66,750

Silberstein Ungar, PLLC was our independent registered public accounting firm through May 27, 2011, at which time Mayer Hoffman McCann P.C. was appointed as our new independent registered public accounting firm.

Audit Fees. The fees identified under this caption were for professional services rendered by Silberstein Ungar, PLLC or Mayer Hoffman McCann P.C. for the audit of our annual financial statements. The fees identified under this caption also include fees for professional services rendered by Silberstein Ungar, PLLC or Mayer Hoffman McCann P.C. for the review of the financial statements included in our quarterly reports on Forms 10-Q. In addition, the amounts include fees for services that are normally provided by the auditor in connection with regulatory filings and engagements for the years identified. Audit fees in 2011 include an aggregate of $4,000 in fees paid in connection with our filing of a Registration Statement on Form S-1 to register for resale the shares of common stock and common stock underlying warrants issued in the June Private Placement. Audit fees in 2012 include an aggregate of $17,300 in fees paid in connection with our filing of a Registration Statement on Form S-1 to register for resale the shares of common stock and common stock underlying warrants issued in the March 2012 Public Offering.

Tax Fees. Tax fees consist principally of assistance related to tax compliance and reporting.

All Other Fees. These fees consist primarily of accounting consultation fees related to potential collaborative agreements. There were no such fees in 2012 and 2011.

Table of Contents

Pre-approval Policy

Subsequent to establishment of our Audit Committee on June 30, 2011, the Audit Committee approved in advance all services provided by our independent registered public accounting firms. All engagements of our independent registered public accounting firm for 2011 entered into prior to the establishment of the Audit Committee were pre-approved by the Board of Directors.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this report.

1. The following consolidated financial statements of OncoSec Medical Incorporated and Subsidiary are filed as part of this report under Item 8 — Financial Statements and Supplementary Data:

2. Financial Statement Schedules

These schedules are omitted because they are not required, or are not applicable, or the required information is shown in the consolidated financial statements or notes thereto.

3. Exhibits

The exhibit index attached to this report is incorporated by reference herein.

Table of Contents

SIGNATURES

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

ONCOSEC MEDICAL INCORPORATED

Date: October 15, 2012

By: /s/ Punit Dhillon
Punit Dhillon
President and Chief Executive Officer

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

SIGNATURE	TITLE	DATE
/s/ Punit Dhillon Punit Dhillon	President, Chief Executive Officer and Director (*Principal Executive Officer*)	October 15, 2012
/s/ Veronica Vallejo Veronica Vallejo	Vice President, Finance and Controller (*Principal Financial and Accounting Officer*)	October 15, 2012
/s/ James DeMesa Dr. James DeMesa	Director	October 15, 2012
/s/ Avtar Dhillon Dr. Avtar Dhillon	Director	October 15, 2012
/s/ Anthony Maida Dr. Anthony Maida, III	Director	October 15, 2012

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

OncoSec Medical Incorporated and Subsidiary

We have audited the accompanying consolidated balance sheets of **OncoSec Medical Incorporated and Subsidiary** (a development stage company) as of July 31, 2012 and 2011, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for the years then ended and for the period from inception (February 8, 2008) to July 31, 2012. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements 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 consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of **OncoSec Medical Incorporated and Subsidiary** as of July 31, 2012 and 2011, and the results of their operations and their cash flows for the years then ended and for the period from inception (February 8, 2008) to July 31, 2012, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 3 to the consolidated financial statements, the Company has incurred recurring operating losses and negative cash flows from operations and is dependent on additional financing to fund operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are described in Note 3 to the consolidated financial statements. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ Mayer Hoffman McCann P.C.
San Diego, California
October 15, 2012

Table of Contents

OncoSec Medical Incorporated
(A Development Stage Company)

Consolidated Balance Sheets

As of July 31, 2012 and July 31, 2011

	July 31, 2012	July 31, 2011
Assets		
Current assets		
Cash and cash equivalents	$ 5,141,509	$ 2,457,693
Prepaid expenses	343,180	427,961
Other current assets	8,367	15,939
Total Current Assets	5,493,056	2,901,593
Property and equipment, net	76,911	57,298
Intangible assets, net	1,858,770	2,715,167
Total Assets	$ 7,428,737	$ 5,674,058
Liabilities and Stockholders' Equity (Deficit)		
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities	$ 384,321	$ 369,175
Accrued compensation	218,849	67,774
Accrued income taxes	3,200	1,600
Derivative liabilities	—	4,850,385
Acquisition obligation, current	1,416,786	1,250,000
Total Current Liabilities	2,023,156	6,538,934
Acquisition obligation, net of current portion	979,316	1,500,000
Total Liabilities	3,002,472	8,038,934
Stockholders' Equity (Deficit)		
Common stock authorized—3,200,000,000 common shares with a par value of $0.0001 Common stock issued and outstanding—87,856,000 and 56,856,000 common shares as of July 31, 2012 and July 31, 2011, respectively	8,786	5,686
Additional paid-in capital	5,593,567	1,033,333
Warrants issued and outstanding — 42,246,000 and 13,696,000 warrants as of July 31, 2012 and July 31, 2011, respectively	5,024,640	431,981
Deficit accumulated during the development stage	(6,200,728)	(3,835,876)
Total Stockholders' Equity (Deficit)	4,426,265	(2,364,876)
Total Liabilities and Stockholders' Equity (Deficit)	$ 7,428,737	$ 5,674,058

The accompanying notes are an integral part of these consolidated financial statements

Table of Contents

OncoSec Medical Incorporated
(A Development Stage Company)

Consolidated Statements of Operations

	Fiscal Year Ended July 31, 2012	Fiscal Year Ended July 31, 2011	Period from Inception (February 8, 2008) to July 31, 2012
Revenue	$ —	$ —	$ —
Expenses:			
Research and development	2,368,481	648,314	3,053,151

General and administrative	3,158,693	1,047,161	4,237,557
Loss from operations	(5,527,174)	(1,695,475)	(7,290,708)
Other income (expense):			
Fair value of derivative liabilities in excess of proceeds	—	(808,590)	(808,590)
Adjustments to fair value of derivative liabilities	4,192,781	(1,041,795)	3,150,986
Loss on extinguishment of debt	(761,492)	—	(761,492)
Financing transaction costs	—	(210,000)	(210,000)
Non-cash interest expense	(266,567)	—	(266,567)
Interest expense	—	(1,357)	(1,357)
Impairment charges	—	—	(9,000)
Net income (loss) before income taxes	(2,362,452)	(3,757,217)	(6,196,728)
Provision for income taxes	2,400	1,600	4,000
Net income (loss)	$ (2,364,852)	$ (3,758,817)	$ (6,200,728)
Basic net income (loss) per common share	$ (0.04)	$ (0.06)	
Diluted net income (loss) per common share	$ (0.04)	$ (0.06)	
Weighted average shares used in computing basic net income (loss) per common share	67,443,432	63,300,493	
Weighted average shares used in computing diluted income (loss) per common share	67,443,432	63,300,493	

The accompanying notes are an integral part of these consolidated financial statements

Table of Contents

OncoSec Medical Incorporated
(A Development Stage Company)

Consolidated Statements of Stockholders' Equity (Deficit)

For the period from Inception (February 8, 2008) to July 31, 2012

	Common Stock (1)		Additional Paid-In	Warrants		Deficit Accumulated during the Development	Total Stockholders' Equity
	Shares	Amount	Capital (1)	Shares	Amount	Stage	(Deficit)
Balance, February 8, 2008	—	$ —	$ —	—	$ —	$ —	$ —
Shares issued to founder on Feb 8, 2008	48,000,000	4,800	10,200	—	—	—	15,000
Private placement on June 30, 2008	20,480,000	2,048	29,952	—	—	—	32,000
Net loss	—	—	—	—	—	(7,187)	(7,187)
Balance, July 31, 2008	68,480,000	6,848	40,152	—	—	(7,187)	39,813
Net loss	—	—	—	—	—	(33,714)	(33,714)
Balance, July 31, 2009	68,480,000	6,848	40,152	—	—	(40,901)	6,099
Net loss	—	—	—	—	—	(36,158)	(36,158)
Balance, July 31, 2010	68,480,000	6,848	40,152	—	—	(77,059)	(30,059)
Common stock cancelled	(17,280,000)	(1,728)	1,728	—	—	—	—
Private placement on March 18, 2011	1,456,000	146	659,873	1,456,000	431,981	—	1,092,000
Common stock issued for services	200,000	20	331,980	—	—	—	332,000
Private placement on June 24, 2011	4,000,000	400	(400)	4,000,000	—	—	—
Net loss	—	—	—	—	—	(3,758,817)	(3,758,817)
Balance, July 31, 2011	56,856,000	5,686	1,033,333	5,456,000	431,981	(3,835,876)	(2,364,876)
Issuance of warrants — Inovio	—	—	—	4,000,000	958,111	—	958,111
Expiration of Series B Warrants	—	—	—	(4,000,000)	—	—	—
Re-classification of Series A Warrants	—	—	—	4,240,000	657,604	—	657,604
Public offering on March 28, 2012, net of issuance costs of $542,500	31,000,000	3,100	4,227,456	32,550,000	2,976,944	—	7,207,500
Share-based compensation expense	—	—	332,778	—	—	—	332,778
Net loss	—	—	—	—	—	(2,364,852)	(2,364,852)
Balance, July 31, 2012	87,856,000	$ 8,786	$ 5,593,567	42,246,000	$ 5,024,640	$ (6,200,728)	$ 4,426,265

(1) Adjusted to reflect the forward stock split of 32-for-1 effective March 1, 2011.

The accompanying notes are an integral part of these consolidated financial statements

Table of Contents

OncoSec Medical Incorporated
(A Development Stage Company)

Consolidated Statements of Cash Flows

	Year Ended July 31, 2012	Year Ended July 31, 2011	Period from Inception (February 8, 2008) to July 31, 2012
Operating activities			
Net income (loss)	$ (2,364,852)	$ (3,758,817)	$ (6,200,728)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	717,450	250,821	968,270
Write-down of supplies inventory	—	38,000	38,000
Write-down of web development costs	—	—	9,000
Fair value of derivative liabilities in excess of proceeds	—	808,590	808,590
Loss on extinguishment of debt	761,492	—	761,492
(Gain) loss on adjustment to fair value of derivative liabilities	(4,192,781)	1,041,795	(3,150,986)
Non-cash interest expense	266,567	—	266,567
Share-based compensation	332,778	—	332,778
Amortization of common stock issued for services	249,000	83,000	332,000
Changes in operating assets and liabilities:			
(Increase) decrease in prepaid expenses	(164,220)	(178,961)	(343,180)
(Increase) decrease in other current assets	7,572	(15,939)	(8,367)
(Decrease) increase in accounts payable and accrued liabilities	15,146	353,246	384,321
(Decrease) increase in accrued compensation	151,075	67,774	218,849
(Decrease) Increase in accrued income taxes	1,600	1,600	3,200
Net cash (used in) provided by operating activities	(4,219,173)	(1,308,891)	(5,580,194)
Investing activities			
Purchases of property and equipment	(54,511)	(61,286)	(124,797)
Investment in intangible assets	—	(250,000)	(250,000)
Net cash (used in) provided by investing activities	(54,511)	(311,286)	(374,797)
Financing activities			
Proceeds from issuance of common stock and warrants	7,750,000	4,092,000	11,889,000
Payment of financing and offering costs	(542,500)	—	(542,500)
Payment of amounts due under acquisition obligation	(250,000)	—	(250,000)
Proceeds from amounts due to stockholder	—	139,500	153,867
Repayment of amounts due to stockholder	—	(153,867)	(153,867)
Net cash (used in) provided by financing activities	6,957,500	4,077,633	11,096,500
Net increase (decrease) in cash	2,683,816	2,457,456	5,141,509
Cash and cash equivalents, at beginning of period	2,457,693	237	—
Cash and cash equivalents, at end of period	$ 5,141,509	$ 2,457,693	$ 5,141,509
Supplemental disclosure for cash flow information:			
Cash paid during the period for:			
Interest	$ —	$ 1,357	$ 1,357
Income taxes	$ 800	$ —	$ 800
Noncash investing and financing transaction:			
Fair value of placement agent warrants issued in the public offering	$ 276,980	$ —	$ 276,980
Acquisition obligation of asset purchase agreement	$ —	$ 2,750,000	$ 2,750,000
Acquisition obligation discounts - imputed interest and fair value of warrants	$ 402,355	$ —	$ 402,355

The accompanying notes are an integral part of these consolidated financial statements

Table of Contents

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Nature of Operations and Basis of Presentation

OncoSec Medical Incorporated (the "Company") was incorporated under the name of Netventory Solutions Inc., in the state of Nevada on February 8, 2008 to pursue the business of inventory management solutions. On March 1, 2011, Netventory Solutions Inc. completed a merger with its subsidiary OncoSec Medical Incorporated and changed its name to OncoSec Medical Incorporated. On March

24, 2011, the Company completed the acquisition of certain technology and related assets from Inovio Pharmaceuticals, Inc. ("Inovio") pursuant to an Asset Purchase Agreement (the "Asset Purchase Agreement") dated March 14, 2011. The acquired technology and related assets relate to the use of drug-medical device combination products for the treatment of various cancers. With this acquisition, the Company re-focused its efforts in the biomedical industry and abandoned its efforts in the online inventory services industry. Prior to the acquisition of the assets from Inovio, the Company had been inactive since March 2010 and had no continuing operations other than those of a company seeking a business opportunity. The Company has not produced any revenues from its newly acquired assets and is considered a development stage company.

The accompanying consolidated financial statements include the accounts of OncoSec Medical Incorporated and its wholly-owned inactive subsidiary, OncoSec Medical Therapeutics Incorporated ("OncoSec Medical Therapeutics"), which was acquired on June 3, 2011 for a total purchase price of $1,000. OncoSec Medical Therapeutics was incorporated in Delaware on July 2, 2010. There have been no significant transactions related to this subsidiary since its inception. All significant intercompany transactions and balances have been eliminated at consolidation.

Note 2—Significant Accounting Policies

Financial Instruments

The carrying amounts for cash, prepaid expenses, accounts payable and accrued expenses approximate fair value due to their short-term nature, generally less than three months. The carrying amounts of the Company's short-term and long-term acquisition obligation outstanding approximate their fair value based upon current rates and terms available to us for similar activity. It is management's opinion that the Company is not exposed to significant interest, currency, or credit risks arising from its other financial instruments and that their fair values approximate their carrying values except where separately disclosed.

Derivative Liabilities

The Company accounts for its warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument. Warrants classified as equity are recorded at fair value as of the date of issuance on the Company's consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on the Company's consolidated balance sheets at their fair value on the date of issuance and will be revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. Management estimates the fair value of these liabilities using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield, and risk-free interest rate.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts in the consolidated financial statements and disclosures made in the accompanying notes to the consolidated financial statements. Actual results could differ materially from the estimates.

Property and Equipment

The cost of property and equipment is depreciated on a straight-line basis over the estimated useful lives of the related assets. The useful lives of property and equipment for the purpose of computing depreciation are:

Computers and Equipment	3 to 5 years
Computer Software	1 to 3 years
Leasehold Improvements	1 year

Total depreciation expense recorded for the years ended July 31, 2012 and 2011 was approximately $35,000 and $4,000, respectively.

Table of Contents

Net Income (Loss) Per Share

The Company computes basic net income (loss) per common share by dividing the applicable net income (loss) by the weighted average number of common shares outstanding during the respective period. Diluted earnings per share is computed using the weighted average number of common shares outstanding during the period, plus the dilutive effect of potential future issuances of common stock relating to stock options and other potentially dilutive securities using the treasury stock method. In calculating diluted earnings per share, the dilutive effect of stock options is computed using the average market price for the respective period. In addition, the assumed proceeds under the treasury stock method include the average unrecognized compensation expense of stock options that are in-the-money. This results in the "assumed" buyback of additional shares, thereby reducing the dilutive impact of stock options. The Company did not include shares underlying stock options and warrants outstanding in the computation of net income (loss) per share for the years ended July 31, 2012 and 2011, as the effect would have been anti-dilutive.

Stock Options to Non-Employees

Expense for stock options granted to non-employees has been determined using the estimated fair value of the stock options issued, based on the Black-Scholes Option Pricing Model. Such options are revalued quarterly until fully vested, with any change in fair value expensed. During the year ended July 31, 2012, the Company recorded $25,000 in research and development expense, and $133,000 in general and administrative expense for stock options granted to non-employees.

Comprehensive Income

Comprehensive income or loss includes all changes in equity except those resulting from investments by owners and distributions to owners. The Company did not have any items of comprehensive income or loss other than net loss from operations for the years ended July 31, 2012 and 2011, or for the period from inception (February 8, 2008) through July 31, 2012.

New Accounting Pronouncements

In May 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2011-04. This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable inputs. This guidance is effective on a prospective basis for annual and interim reporting periods beginning after December 15, 2011. The adoption of this standard did not have a material impact on the Company's financial position or results of operations.

In June 2011, the FASB issued ASU 2011-05. This newly issued accounting standard (1) eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity; (2) requires the consecutive presentation of the statement of net income and other comprehensive income; and (3) requires an entity to present reclassification adjustments on the face of the financial statements from other comprehensive income to net income. The amendments do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income nor do the amendments affect how earnings per share is calculated or presented. This guidance is required to be applied retrospectively and is effective for fiscal years and interim periods beginning after December 15, 2011. The adoption of this standard did not have a material impact on the Company's financial position or results of operations.

In December 2011, the FASB issued ASU 2011-12. This accounting standard amends certain pending paragraphs in ASU 2011-05. The amendments are being made to allow the Board time to re-deliberate whether to present on the face of the financial statements the effects of reclassifications out of accumulated other comprehensive income on the components of net income and other comprehensive income for all periods presented. This guidance is effective on a prospective basis for annual and interim reporting periods beginning after December 15, 2011. The adoption of this standard did not have a material impact on the Company's financial position or results of operations.

Table of Contents

Note 3—Cash and Liquidity

The Company considers all liquid investments with maturities of ninety days or less when purchased to be cash equivalents. As of July 31, 2012 and 2011, cash and cash equivalents were comprised of cash in checking accounts.

The Company's activities to date have been supported by equity and debt financing. It has sustained losses in previous reporting periods with an inception to date loss of $6,200,728 as of July 31, 2012.

The Company does not currently believe that its existing cash resources are sufficient to meet its anticipated needs during the next twelve months. The Company will require additional financing to fund its planned operations, including research and development, clinical trials and commercialization of the intellectual property acquired from Inovio pursuant to the Asset Purchase Agreement (as further described in Note 5) and making of scheduled payments to Inovio under the acquisition obligation (as further described in Note 6). In addition, the Company will require additional financing in order to seek to license or acquire new assets, research and develop any potential patents and the related compounds, and obtain any further intellectual property that the Company may seek to acquire. Additional financing may not be available to the Company when needed or, if available, it may not be obtained on commercially reasonable terms. If the Company is not able to obtain the necessary additional financing on a timely basis, the Company will be forced to delay or scale down some or all of its development activities or perhaps even cease the operation of its business. Since inception the Company has funded its operations primarily through equity and debt financings and it expects that it will continue to fund its operations through equity and debt financing. If the Company raises additional financing by issuing equity securities, its existing stockholders' ownership will be diluted. Obtaining commercial loans, assuming those loans would be available, will increase the Company's liabilities and future cash commitments. The Company also expects to pursue non-dilutive financing sources. However, obtaining such financing would require significant efforts by the Company's management team, and such financing may not be available, and if available, could take a long period of time to obtain.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. There is substantial doubt about the Company's ability to continue as a going concern as the continuation of the Company's business is dependent upon obtaining additional financing sources and the continued support of its stockholders to aid in financing operations. The consolidated financial statements do not include any adjustments that might result from this uncertainty.

Note 4—Fair Value of Financial Instruments

Financial assets and liabilities are measured at fair value, which is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The following is a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, 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 for substantially the full term of the assets or liabilities.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

In conjunction with the June 2011 Private Placement, the Company issued warrants with derivative features. These instruments are accounted for as derivative liabilities (see Note 7).

The Company used Level 3 inputs for its valuation methodology for the warrant derivative liabilities. The estimated fair values were determined using a Monte Carlo option pricing model based on various assumptions (see Note 7). The Company's derivative liabilities are adjusted to reflect estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded in other income or expense accordingly, as adjustments to fair value of derivative liabilities.

On February 21, 2012, Series C Warrants to purchase an aggregate of 4,000,000 shares of the Company's stock expired unexercised. On March 28, 2012, the Series A Warrants were reclassified to equity, following the reset of the exercise price to the base floor price of $0.50 per warrant share and an evaluation of the instrument's settlement provisions which were determined to be fixed-for-fixed (see Note 7). As a result, at July 31, 2012, there were no derivative liabilities recorded on the Company's consolidated balance sheet.

Table of Contents

At July 31, 2011, the estimated fair values of the liabilities measured on a recurring basis are as follows:

Fair Value Measurements at July 31, 2011

	Balance at July, 31, 2011	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Warrant derivative liability — Series A and Series C Warrants	$ 4,850,385	—	—	$ 4,850,385

The following table presents the activity for liabilities measured at estimated fair value using unobservable inputs for the year ended July 31, 2012:

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

	Warrant Derivative Liability
Beginning balance at July 31, 2011	$ 4,850,385
Issuances	—
Adjustments to estimated fair value	(4,192,781)
Re-classification of fair value to equity (see Note 7)	(657,604)
Ending balance at July 31, 2012	$ —

During the year ended July 31, 2011, the estimated fair value of derivative liabilities increased by $1,041,795. During the year ended July 31, 2012, the estimated fair value of derivative liabilities decreased by $4,192,781. These amounts were recorded as other income (expense) during the years ended July 31, 2012 and 2011.

Note 5—Intangible Asset Acquisition and Cross License Agreement

On March 14, 2011, the Company entered the Asset Purchase Agreement with Inovio, whereby the Company agreed to purchase certain assets of Inovio related to certain non-DNA vaccine and selective electrochemical tumor ablation ("SECTA") technology (which we now refer to as the OncoSec Medical System, or OMS), including, among other things: (a) certain patents, including patent applications, and trademarks related to the SECTA technology; (b) certain equipment, machinery, inventory and other tangible assets related to the technology; (c) certain engineering and quality documentation related to the technology; and (d) the assignment of certain contracts related to the technology. In return, the Company is obligated to pay Inovio $3,000,000 in scheduled payments over the period of two years from the closing date of the Asset Purchase Agreement and a royalty on commercial product sales related to the SECTA technology. The transaction closed on March 24, 2011.

In connection with the closing of the Asset Purchase Agreement, the Company entered into a cross-license agreement with Inovio. Under the terms of the agreement, the Company granted Inovio a fully paid-up, exclusive, worldwide license to certain of the acquired SECTA technology patents in the field of use of electroporation. No consideration was received by the Company, nor will Inovio be liable for future royalty fees related to this arrangement. Inovio also granted the Company a non-exclusive, worldwide license to certain non-SECTA technology patents held by it in consideration for the following: (a) a fee for any sublicense of the Inovio technology, not to exceed 10%; (b) a royalty on net sales of any business the Company develops with the Inovio technology, not to exceed 10%; and (c) payment to Inovio of any amount Inovio pays to one licensor of the Inovio technology that is a direct result of the license. In addition, the Company agreed not to transfer this non-exclusive license apart from the assigned intellectual property.

ASC 805, *Business Combinations*, provides guidance on determining whether an acquired set of assets meets the definition of a business for accounting purposes. Under the framework, the acquired set of activities and assets have to be capable of being operated as a business, from the viewpoint of a market participant as defined in ASC 820, *Fair Value Measurements*. Two essential elements required for an integrated set of activities are inputs and outputs. The Company evaluated the Asset Purchase Agreement and in accordance with the guidance, determined it did not meet the definition of a business acquisition as the acquisition consisted solely of the SECTA technology and certain other tangible assets. The Company did not acquire the right to any employees previously involved with the technology, or research processes previously in place at Inovio. The Company has therefore accounted for the transaction as an asset acquisition.

Table of Contents

The purchase price was allocated to the identified tangible and intangible assets acquired based on their relative fair values, which were derived from their individual estimated fair values of $38,000 and $3,000,000, respectively. Included in the estimated fair value of the intangible assets is the value associated with the engineering and quality documentation acquired, which was determined to have no stand-alone value apart from the patents. The relative fair value of the intangible assets of $2,962,000 was reduced by a discount of approximately $174,000 recorded for the acquisition obligation (see Note 6). The relative fair value of the tangible assets of $38,000 was expensed to research and development as of the acquisition date.

The following table summarizes the purchase price allocation for the assets acquired:

Intangible assets - patents	$	2,788,154
Tangible assets — machinery, property and inventory	$	38,000

Patents are stated net of accumulated amortization of approximately $929,000 and $247,000 as of July 31, 2012 and July 31, 2011, respectively. The patents are amortized on a straight-line basis over the estimated remaining useful lives of the assets, determined as four years from the date of acquisition. Amortization expense for the years ended July 31, 2012 and 2011 was approximately $682,000 and $247,000, respectively. At July 31, 2012, the weighted average remaining amortization period for all patents was approximately 2.67 years. Estimated amortization expense over the annual periods ended July 31, 2013, 2014, and 2015 is approximately $697,000, $697,000 and $465,000, respectively.

In accordance with the provisions of the applicable authoritative guidance, the Company's long-lived assets and amortizable intangible assets are tested for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. The Company assesses the recoverability of such assets by determining whether their carrying value can be recovered through undiscounted future operating cash flows, including its estimates of revenue driven by assumed market segment share and estimated costs. If impairment is indicated, the Company measures the amount of such impairment by comparing the fair value to the carrying value. During the years ended July 31, 2012 and 2011, no impairment was recorded.

Note 6—Acquisition Obligation

On March 24, 2011, the Company recorded an acquisition obligation for amounts due to Inovio in accordance with the Asset Purchase Agreement (see Note 5). On September 28, 2011, the Company entered into a First Amendment to Asset Purchase Agreement (the "First Amendment"). The First Amendment modified the payment of $750,000 due to Inovio by September 24, 2011, requiring the Company to make a payment of $100,000 to Inovio on September 30, 2011, with the remaining $650,000 to be paid to Inovio at the earlier of: (a) 30 days following the receipt by the Company of aggregate net proceeds of more than $5,000,000 from one or more financings occurring on or after September 30, 2011, or (b) March 31, 2012. On March 24, 2012, the Company entered into a Second Amendment to Asset Purchase Agreement (the "Second Amendment"). The Second Amendment further modified the payment terms for the $1,150,000 scheduled payments due to Inovio in March 2012 by requiring the Company to make a payment of $150,000 on March 31, 2012, with the remaining $1,000,000 to be paid to Inovio on December 31, 2013. In consideration for the First Amendment, the Company issued to Inovio a warrant to purchase 1,000,000 shares of common stock (see Note 8). In consideration for the Second Amendment, the Company issued to Inovio a warrant to purchase 3,000,000 shares of common stock (see Note 8).

In accordance with ASC 835-30 "Interest on Receivables and Payables", the future payments under the acquisition obligation were discounted using the incremental borrowing rate of 5.00%, to arrive at an initial imputed interest discount on the obligation as of the acquisition date of approximately $174,000. The imputed interest discount was recorded as a reduction to the relative fair value of the intangible assets acquired (see Note 5). The discount was revised as of the date of the First and Second Amendments to arrive at a revised imputed interest discount on the obligation of approximately $132,000 as of September 28, 2011 and $145,000 as of March 24, 2012. The increase in imputed interest as of the date of the Second Amendment was primarily due to the extended payment terms. Non-cash interest expense recognized during the year ended July 31, 2012, was approximately $152,000. At July 31, 2012, the outstanding acquisition obligation was reduced by short-term and long-term imputed interest discounts of approximately $83,000 and $21,000, respectively.

The Company evaluated both amendments in accordance with ASC 470-50. The Company determined the modification of the terms upon entry into the First Amendment to the Asset Purchase Agreement on September 28, 2011, was not considered substantial as of that date. In accordance with the guidance, the fair value of the warrants issued to Inovio as consideration for the Amendment were recorded as a discount to the acquisition obligation to be amortized to interest expense over the remaining term of the modified obligation payable, starting September 28, 2011. On March 24, 2012, the Company entered into the Second Amendment. In accordance with the guidance, the Company evaluated the cumulative impact of both amendments and determined the modification of the terms of the Asset Purchase Agreement as a result of the Second Amendment was considered substantial. The Company recorded the difference between the re-acquisition price and carrying value of the debt as of the modification date of March

Table of Contents

24, 2012 as a loss on debt extinguishment of $761,492. The loss on debt extinguishment recorded resulted in the write-off of the unamortized portion of the discount to the debt obligation initially recorded upon entry into the First Amendment in the amount of approximately $113,000 as of March 24, 2012. As of March 24, 2012, the acquisition obligation's fair value was $2,504,178. During the year ended July 31, 2012, approximately $115,000 was recognized as non-cash interest expense for amortization of the discount to the acquisition obligation.

The scheduled payments for the $3,000,000 obligation under this arrangement, as amended, are as follows:

- $ 250,000 - Upon the closing of the Asset Purchase Agreement
- $ 100,000 - September 30, 2011
- $ 150,000 - March 31, 2012
- $ 500,000 - September 24, 2012
- $ 1,000,000 - March 24, 2013
- $ 1,000,000 - December 31, 2013

On March 24, 2011, September 30, 2011 and March 30, 2012, the Company made payments of $250,000, $100,000 and $150,000, respectively, to Inovio.

Note 7—Private Placements and Public Offering

March 2011 Private Placement

On March 18, 2011, the Company closed a private placement whereby it issued 1,456,000 units at a purchase price of $0.75 per unit for gross proceeds of $1,092,000. Each unit consists of one share of common stock and one share purchase warrant entitling the holder to acquire one share of common stock at a price of $1.00 per share for a period of five years from the closing of the private placement. The fair value of the warrants, based on their fair value relative to the common stock issued, was $431,981 (based on the Black-Scholes Option Pricing Model assuming no dividend yield, volatility of 89.68%, and a risk-free interest rate of 2.11%). The warrants were exercisable as of March 18, 2011 and any unexercised warrants will expire on March 18, 2016. The Company completed an evaluation of the warrants issued in connection with this private placement and determined the warrants should be classified as equity within the consolidated balance sheets as the instrument's settlement provisions were fixed-for-fixed.

June 2011 Private Placement

On June 24, 2011, the Company closed a private placement whereby it issued an aggregate of 4,000,000 shares of the Company's common stock at a purchase price of $0.75 per share, and three series of warrants, the Series A Warrants, the Series B Warrants and the Series C Warrants, (collectively, the "Warrants"), to purchase an aggregate of 12,000,000 shares of the Company's common stock, for proceeds to the Company of $3.0 million (the "June 2011 Private Placement"). After deducting for fees and expenses, the aggregate net proceeds from the sale of the common stock and the Warrants in the June Private Placement were approximately $2.79 million.

Pursuant to the terms of the Securities Purchase Agreement, each investor was issued a Series A Warrant, a Series B Warrant and a Series C Warrant, each to purchase up to a number of shares of the Company's common stock equal to 100% of the shares issued to such investor. The Series A Warrants have an exercise price of $1.20 per share, are exercisable immediately upon issuance and have a term of exercise equal to five years. The Series B Warrants have an exercise price of $0.75 per share, are exercisable immediately upon issuance and expire on February 21, 2012. The Series C Warrants have an exercise price of $1.20 per share, vest and are exercisable ratably commencing on the exercise of the Series B Warrants held by each investor and have a term of exercise equal to five years. The Series C Warrants also expire if the Series B Warrants expire unexercised. On February 21, 2012, the Series B and Series C Warrants expired unexercised.

On June 24, 2011, in connection with the closing of the June 2011 Private Placement, the Company and the Purchasers entered into a Registration Rights Agreement (the "Registration Rights Agreement"), pursuant to which the Company is required to file a registration statement within 30 days following such closing to register the resale of the common stock and the common stock underlying the Warrants issued in the June 2011 Private Placement. The failure on the part of the Company to meet the filing deadlines and other requirements set forth in the Registration Rights Agreement may subject the Company to payment of certain monetary penalties, up to a maximum of 9% of the aggregate proceeds of the June 2011 Private Placement. As of July 31, 2012 the Company was in compliance with the requirements set forth in the Registration Rights Agreement.

In addition, pursuant to the terms of a placement agent agreement entered into with the lead placement agent on June 1, 2011 and amended on June 21, 2011, the Company agreed to pay the lead placement agent and the co-placement agent fees equal to 6% of

Table of Contents

the aggregate gross proceeds raised in the private placement of $180,000 and reimbursement to the lead placement agent for certain expenses in the amount of $30,000. The total cash fees of $210,000 paid to the placement agents were recorded as a period expense as of the closing date. In connection with the agreement, the Company also issued to the placement agents Series A Warrants to purchase 6% of the aggregate common stock issued in the June 2011 Private Placement, or 240,000 shares of common stock.

Allocation of Proceeds

At the Closing Date, the estimated fair value of the Series A and Series C Warrants exceeded the proceeds from the June 2011 Private Placement of $3,000,000 (see the valuations of these derivative liabilities under the heading, "Derivative Liabilities" below). As a result, all of the proceeds were allocated to these derivative liabilities and no proceeds remained for allocation to the common stock and Series B Warrants issued in the financing.

Common Stock

At the Closing Date, the Company issued 4,000,000 shares of unregistered common stock and recorded the par value of the shares issued of $400 (at par value of $0.0001 per share) with a corresponding reduction to paid-in capital, given that there was no allocated value from the proceeds to the common stock.

Derivative Liabilities

The Company accounted for the Series A and C Warrants in accordance with accounting guidance for derivatives. The accounting guidance provides a two-step model to be applied in determining whether a financial instrument is indexed to an entity's own stock that would qualify such financial instruments for a scope exception. This scope exception specifies that a contract that would otherwise meet the definition of a derivative financial instrument would not be considered as such if the contract is both (i) indexed to the entity's own stock and (ii) classified in the stockholders' equity section of the balance sheet. The Company determined that its Series A and Series C Warrants were ineligible for equity classification as a result of the anti-dilution provisions in the Series A and Series C Warrants that may result in an adjustment to the warrant exercise price.

On the closing date of the June 2011 Private Placement, the derivative liabilities were recorded at an estimated fair value of $3,808,590. Given that the fair value of the derivative liabilities exceeded the total proceeds of the private placement of $3,000,000, no net amounts were allocated to the common stock. The $808,590 amount by which the recorded liabilities exceeded the proceeds was charged to other expense at the closing date. The Company revalued the derivative liability as of each subsequent balance sheet date, with any changes in the fair value between reporting periods recorded as other income or expense.

On March 28, 2012, the anti-dilution provisions of the Series A Warrants were triggered upon the closing of the Company's March 2012 registered public offering, which resulted in the reset of the exercise price of the Series A Warrants to the base floor price of $0.50. The fair value of the derivative liabilities as of March 28, 2012 was $657,604. The reset of the exercise price to the base floor price caused the anti-dilution provisions to become void as of March 28, 2012 and for future periods. As a result, on March 28, 2012, the Series A Warrants were reclassified as equity within the Company's consolidated financial statements, at a fair value of $657,604.

The change in the estimated fair value of the Series A and C Warrants during the period of derivative liability classification resulted in other income (expense) of $4,192,781 and ($1,041,795) for the years ended July 31, 2012 and 2011, respectively. Such change in the estimated fair value was primarily due to the fluctuation in the Company's common stock price and updates to the assumptions used in the option pricing models.

The derivative liabilities were valued as of March 28, 2012 and July 31, 2011, using a Monte Carlo valuation model with the following assumptions:

	March 28, 2012	July 31, 2011
Closing price per share of common stock	0.22	0.93
Exercise price per share	0.50	1.20
Expected volatility	125.0%	91.6%
Risk-free interest rate	1.05%	1.35%
Dividend yield	—	—
Floor price	0.50	0.50
Remaining expected term of underlying securities (years)	4.24	4.90

Table of Contents

In addition, as of the valuation dates, management assessed the probabilities of future financings assumptions in the Monte Carlo valuation models. The probability of the Series C Warrant conditional exercise feature was also assessed for the fair values derived as of July 31, 2011.

March 2012 Public Offering

On March 28, 2012, the Company closed its registered public offering of an aggregate of 31,000,000 shares of the Company's common stock and warrants to purchase an aggregate of 31,000,000 shares of common stock at a purchase price of $0.25 per unit, for gross proceeds to the Company of $7.75 million (the "March 2012 Public Offering"). On March 23, 2012, the Company entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") for the issuance and sale by the Company of the common stock and warrants in the Public Offering. After deducting for fees and expenses, the aggregate net proceeds from the March 2012 Public Offering were approximately $7.2 million.

Pursuant to the terms of the Securities Purchase Agreement, at the closing each purchaser was issued a warrant to purchase up to a number of shares of the Company's common stock equal to 100% of the shares issued to such purchaser in the Public Offering. The warrants have an exercise price of $0.35 per share, are exercisable immediately upon issuance and have a term of exercise equal to five years from the date of issuance of the warrants, or March 28, 2017.

Pursuant to a Placement Agent Agreement dated January 23, 2012 by and between the Company and Rodman & Renshaw, LLC ("Rodman"), as subsequently amended on March 12, 2012 (as amended, the "Placement Agent Agreement"), Rodman agreed to act as the Company's placement agent in connection with the Public Offering. Under the Placement Agent Agreement, the Company agreed to pay Rodman a cash fee equal to 6% of the gross proceeds of the Public Offering, as well as a non-accountable expense allowance equal to 1% of the gross proceeds of the March 2012 Public Offering. In addition, the Company agreed to issue to the placement agent warrants to purchase up to an aggregate of 5% of the aggregate number of shares of common stock sold in the Public Offering, or warrants to purchase 1,550,000 shares of the Company's common stock (the "Placement Agent Warrants"). As permitted under the Placement Agent Agreement, the Company elected to pay 30% of the 5% Placement Agent Warrants directly to Roth Capital Partners, LLC ("Roth"), who acted as financial advisors in the Public Offering, and as a result issued to Rodman a Placement Agent Warrant to purchase 1,085,000 shares of common stock and issued to Roth a Placement Agent Warrant to purchase 465,000 shares of common stock. The Placement Agent Warrants have substantially the same terms as the warrants issued to the purchasers in the Public Offering, except that such warrants have an exercise price of $0.3125 and shall expire on March 23, 2017. The fair value of the Placement Agent Warrants was $276,980 (based on the Black-Scholes Option Pricing Model assuming no dividend yield, volatility of 125.0%, and a risk-free interest rate of 1.05%), and was recorded as an offering cost. The Placement Agent Warrants and the shares of the Company's common stock underlying the Placement Agent Warrants have not been registered under the Securities Act of 1933, as amended.

The fair value of the warrants issued in connection with the March 2012 Public Offering to the purchasers, based on their fair value relative to the common stock issued, was $3,206,486 (based on the Black-Scholes Option Pricing Model assuming no dividend yield, volatility of 125.0%, and a risk-free interest rate of 1.05%). The Company completed an evaluation of all of the warrants issued in connection with this March 2012 Public Offering and determined the warrants should be classified as equity within the consolidated balance sheet.

Note 8— Other Equity and Common Stock Transactions

On March 1, 2011 the Company affected a 32 for one forward stock split of its authorized, issued and outstanding common stock. As a result, its authorized capital increased from 100,000,000 shares of common stock at $0.001 par value to 3,200,000,000 shares of common stock at $0.0001 par value, and its outstanding common stock has increased from 2,140,000 shares of common stock to 68,480,000 shares of common stock as of that date. The accompanying consolidated financial statements for the annual prior periods presented have been retroactively adjusted to reflect the effects of the forward stock split.

On March 22, 2011, 17,280,000 shares of common stock held by previous majority stockholders were returned to the Company for no consideration. The shares were not retired and are available for future issuance.

On May 9, 2011, the Board of Directors authorized the issuance of 200,000 fully vested shares of the Company's common stock to a consultant in exchange for advisory services. The shares were valued at $332,000, based on the closing price of the Company's common stock on the date of issuance, and are amortized over the service period of twelve months. During the years ended July 31, 2012 and 2011, $249,000 and $83,000, respectively, was recorded as consulting expense for these shares.

Table of Contents

On September 28, 2011, in consideration for the First Amendment entered into with Inovio, the Company issued to Inovio a warrant to purchase 1,000,000 shares of the Company's common stock (see Note 6). The warrant has an exercise price of $1.20 per share, is exercisable immediately upon issuance and has an exercise term of five years. The warrant also contains a mandatory exercise provision allowing the Company to request the exercise of the warrant in whole provided that the Company's Daily Market Price (as defined in the warrant) is equal to or greater than $2.40 for twenty consecutive trading days. The Company completed an evaluation of the warrant issued in connection with this private placement and determined the warrants should be classified as equity within the consolidated balance sheet. The fair value of the warrant was $228,509 (based on the Black-Scholes Option Pricing Model assuming no dividend yield, volatility of 87.62%, and a risk-free interest rate of 0.96%). In accordance with the guidance, the fair value of the warrant will be recorded as a discount to the acquisition obligation and amortized to interest expense over the remaining term of the modified obligation payable (see Note 6).

On March 24, 2012, in consideration for the Second Amendment entered into with Inovio, the Company issued to Inovio a warrant to purchase 3,000,000 shares of the Company's common stock (see Note 6). The warrant has an exercise price of $1.00 per share, is exercisable immediately upon issuance and has an exercise term of five years. The warrant also contains a mandatory exercise provision allowing the Company to request the exercise of the warrant in whole provided that the Company's Daily Market Price (as defined in the

warrant) is equal to or greater than $2.40 for twenty consecutive trading days. The Company completed an evaluation of the warrant issued in connection with this private placement and determined the warrants should be classified as equity within the consolidated balance sheet. The fair value of the warrant was $729,602 (based on the Black-Scholes Option Pricing Model assuming no dividend yield, volatility of 125.0%, and a risk-free interest rate of 1.04%). In accordance with the applicable guidance, the fair value of the warrant will be recorded as part of the loss on debt extinguishment as of the issuance date (see Note 6).

At July 31, 2012 the Company had outstanding warrants to purchase 42,246,000 shares of common stock, with exercise prices ranging from $0.50 to $1.20, all of which were classified as equity instruments. These warrants expire at various times between June 2016 and March 2017.

The Company has not adopted any policy regarding payment of dividends. No dividends have been paid during the periods presented.

Note 9 — Stock-Based Compensation

In May 2011, the Company's Board of Directors adopted the OncoSec Medical Incorporated 2011 Stock Incentive Plan (the "2011 Plan"), subject to stockholder approval. The 2011 Plan authorized the Board of Directors to grant incentive stock options and non-statutory stock options to employees, directors, and consultants for up to 5,200,000 shares of common stock. Under the Plan, incentive stock options and nonqualified stock options can be granted. Incentive stock options are to be granted at a price that is no less than 100% of the fair value of the stock at the date of grant. Options vest over a period specified in individual option agreements entered into with grantees, and are exercisable for a maximum period of ten years after the date of grant. Options granted to stockholders who own more than 10% of the outstanding stock of the Company at the time of grant must be issued at an exercise price no less than 110% of the fair value of the stock on the date of grant. The Company obtained stockholder approval of the 2011 Plan at its March 2, 2012 annual meeting of stockholders.

During the year ended July 31, 2012, the Company granted options to purchase 1,300,000 and 400,000 shares of the Company's common stock to employees and directors, respectively, under the 2011 Plan. The options issued to employees have a ten-year term, vest over two years and have exercise prices ranging from $0.21 to $0.40. The options issued to directors have a ten-year term, vests quarterly in equal increments over one year and have exercise prices ranging from $0.21 to $0.40.

During the year ended July 31, 2012, the Company also granted options to purchase 1,560,000 shares of the Company's common stock to consultants under the 2011 Plan. The options issued to consultants have three to ten year terms, vest in accordance with the term of the consulting agreement, and have exercise prices ranging from $0.18 to $0.39.

The Company recognizes compensation expense for stock option awards on a straight-line basis over the applicable service period of the award. The service period is generally the vesting period, with the exception of options granted subject to a consulting agreement, whereby the option vesting period and the service period are defined pursuant to the terms of the consulting agreement. Share-based compensation expense for awards granted during the year ended July 31, 2012 were based on the grant date fair value estimated using the Black-Scholes Option Pricing Model. The following assumptions were used to calculate the fair value of share based compensation for the year ended July 31, 2012; Expected volatility, 85.96% - 125.0%, Risk-free interest rate, 0.35% - 2.08%, Expected forfeiture rate, 0.00%, Expected dividend yield, 0.00%, Expected term, 3.00 - 10.00 years.

Expected price volatility is the measure by which the Company's stock price is expected to fluctuate during the expected term of an option. The Company exited shell status on March 24, 2011. In situations where a newly public entity has limited historical data on the price of its publicly traded shares and no other traded financial instruments, authoritative guidance is provided on

Table of Contents

estimating this assumption by basing its expected volatility on the historical, expected, or implied volatility of similar entities whose share option prices are publicly available. In making the determination as to similarity, the guidance recommends the consideration of industry, stage of life cycle, size and financial leverage of such other entities. The Company's expected volatility is derived from the historical daily change in the market price of its common stock since it exited shell status, as well as the historical daily changes in the market price for the peer group as determined by the Company.

The expected term of the options represents the period that stock-based awards are expected to be outstanding based on the simplified method provided in ASC Topic 718, which averages an award's weighted-average vesting period and expected term for share options and warrants. The Company will continue to use the simplified method until it has the historical data necessary to provide a reasonable estimate of expected life in accordance with ASC Topic 718, as amended by SAB 110. For the expected term of options issued to employees and directors, the Company used a simple average of the vesting period and the contractual term for options granted, all of which have been granted subsequent to March 2011, as permitted by ASC Topic 718. The Company expects to continually evaluate its historical data as a basis for determining the expected terms of options granted under the 2011 Plan.

The Company's estimation of the expected term for stock options granted to parties other than employees or directors is the contractual term of the option award. For the purposes of estimating the fair value of stock option awards, the risk-free interest rate used in the Black-Scholes calculation is based on the prevailing U.S. Treasury yield. The Company has never paid any dividends on its common stock and does not anticipate paying dividends on its common stock in the foreseeable future.

Stock-based compensation expense recognized in the Company's consolidated statements of operations is based on awards ultimately expected to vest, reduced for estimated forfeitures. Authoritative guidance requires forfeitures to be estimated at the time of grant, and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Due to the Company's minimal stock-based

compensation activity, the Company has not had significant forfeitures of stock options granted to employees and directors. Therefore, the Company has estimated the forfeiture rate of its outstanding stock options as zero, but will continually evaluate its historical data as a basis for determining expected forfeitures.

Share-based compensation expense recorded in the Company's consolidated statement of operations for the year ended July 31, 2012 resulting from share-based compensation awarded to the Company's employees, directors and consultants was approximately $333,000. Of this balance during the year ended July 31, 2012, $89,000 was recorded to research and development, and $244,000 was recorded in General and Administrative in the Company's consolidated statement of operations.

A summary of the stock option activity is as follows:

	Option Shares Outstanding	Weighted-Average Exercise Price	Aggregate Intrinsic Value ($000's)
Balance at July 31, 2011	—	—	$ —
Granted	3,260,000	$ 0.24	
Exercised	—	—	
Forfeited / Cancelled	(85,000)	0.40	—
Balance at July 31, 2012	3,175,000	$ 0.24	$ 24

Range of Exercise Prices	Number of Shares Outstanding	Weighted Average Contractual Life (in years)	Weighted Average Exercise Price	Number Of Shares Exercisable	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price
$ 0.18 - 0.40	3,175,000	7.53	0.24	1,962,500	6.24	$ 0.23

The weighted-average grant date fair value of stock options granted during the year ended July 31, 2012 was $0.18. As of July 31, 2012, there was approximately $242,000 of unrecognized non-cash compensation cost related to unvested options, which will be recognized over a weighted average period of 0.89 years.

Note 10—Income Taxes

The FASB Topic on Income Taxes prescribes a recognition threshold and measurement attribute criteria for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. The Company has had no unrecognized tax benefits.

Table of Contents

The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had an accrual of $0 and $0 for interest or penalties on the Company's consolidated balance sheets at July 31, 2012 or July 31, 2011 respectively, and has recognized $0 and $0 of interest and/or penalties in the consolidated statements of operations for the years ended July 31, 2012 and 2011.

The Company is subject to taxation in the United States and California. The Company's tax years for 2008 and forward are subject to examination by the United States and California tax authorities due to the carry forward of unutilized net operating losses and research and development credits.

At July 31, 2012, the Company had federal and California income tax net operating loss carryforwards of approximately $4,996,000 and $4,921,000, respectively. In addition, the Company has federal and California research and development tax credit carryforwards of approximately $73,000 and $77,000, respectively. The federal net operating loss, research tax credit carryforwards and California net operating loss carryforwards will begin to expire in 2030 unless previously utilized. The California research and development credit carryforwards will carry forward indefinitely until utilized. The Company has not completed a study to assess whether an ownership change has occurred, as defined by IRC Section 382/383 or whether there have been multiple ownership changes since the Company's formation due to the complexity and cost associated with such a study, and the fact that there may be additional such ownership changes in the future. Based on a preliminary assessment, the Company believes that an ownership change occurred in 2011. The Company estimates that if such a change did occur, the federal and state net operating loss carry-forwards and research and development credits that can be utilized in the future will be significantly limited. There can be no assurance that the Company will ever be able to realize the benefit of some or all of the federal and state loss carryforwards or the credit carryforwards, either due to ongoing operating losses or due to ownership changes, which limit the usefulness of the loss carryforwards.

Significant components of the Company's deferred tax assets as of July 31, 2012 and 2011 are listed below:

	2012	2011
Net operating loss carryforwards	1,986,000	207,000
Credits	124,000	31,000
Start-up costs	72,000	74,000
Accumulated Depreciation	282,000	71,000
Other	129,000	11,000

Net deferred tax assets	2,593,000	394,000
Valuation allowance for deferred tax assets	(2,593,000)	(394,000)
Net deferred taxes	$ —	$ —

A valuation allowance of $2,593,000 and $394,000 at July 31, 2012 and 2011, respectively, has been recognized to offset the net deferred tax assets as realization of such assets is uncertain.

A reconciliation of incomes taxes using the statutory income tax rate, compared to the effective rate, is as follows:

	2012	2011
Federal tax benefit a the expected statutory rate	34.00%	34.00%
State income tax, net of federal tax benefit	(0.07)%	(3.08)%
Loss on extinguishment of debt	(11.48)%	—
Adjustment to fair value of derivative liabilities	63.20%	(18.64)%
Non-deductible expenses	(6.63)%	(0.45)%
Change in valuation allowance	(81.58)%	(9.93)%
Other	2.45%	(1.92)%
Income tax benefit — effective rate	(0.11)%	(0.02)%

Note 11—Commitments and Contingencies

In the ordinary course of business, the Company may become a party to lawsuits involving various matters. The Company is unaware of any such lawsuits presently pending against it which, individually or in the aggregate, are deemed to be material to the Company's financial condition or results of operations.

On May 12, 2011, the Company entered into a one-year lease agreement for office space, with a base annual rent of $42,000. On June 1, 2012, the Company entered into an amendment to its lease agreement. The lease amendment extends the lease term for a period of seven months commencing on June 1, 2012, through December 31, 2012. The amendment also increases the base monthly rent to approximately $10,000.

Table of Contents

On May 18, 2011, the Company entered into Employment Agreements with a term of five years with its President and Chief Executive Officer, its Chief Business Officer and its VP Finance and Controller (the "Officers"). Under the terms of the agreements, if any of the Officers are terminated other than for cause, death or disability, or if the case of termination of employment with the Company for good reason, the Officers are entitled to receive (i) severance payments equal to between six and twenty four months of base salary, (ii) a pro rata percentage of the annual bonus received the prior fiscal year and (iii) payment of health benefits for a period between six and twenty four months, conditioned on the execution of a release. In addition, in the event of a change in control of the Company, the agreements provide for the acceleration of vesting of any unvested stock options outstanding. Effective April 26, 2012, as a result of the termination of employment of the Company's Chief Business Officer and his execution of a release, the Company recorded a severance liability of $220,000 in accordance with the terms of the Employment Agreement and the separation release.

Effective May 15, 2012, the Company adopted a defined contribution savings plan pursuant to Section 401(k) of the Internal Revenue Code. The plan is for the benefit of all qualifying employees and permits voluntary contributions by employees up to 100% of eligible compensation, subject to the Internal Revenue Service ("IRS") imposed maximum limits. The terms of the plan allows for discretionary employer matching contributions. No employer matching contributions were made during the year ended July 31, 2012.

Note 12—Related Party Transactions

On February 11, 2011, the Company entered into a promissory note arrangement with a stockholder in the amount of $120,000. The note bore interest at a rate of 10% annually. Full payment on this note was made on March 18, 2011 with proceeds received from the March 2011 Private Placement (see Note 7). Total interest expense recorded during the year ended July 31, 2011 was approximately $1,400.

On March 18, 2011, the Company made full payment on a stockholder loan in the amount of $33,867 with proceeds received from the March 2011 Private Placement (see Note 7). The note was non-interest bearing.

The Company's Chairman of the Board of Directors is also a Director and the Chairman (formerly Executive Chairman) of Inovio. The Company's Chairman abstained from all discussions and voting related to negotiations of the Asset Purchase Agreement disclosed in Note 5 and the Amendment (and related warrant) disclosed in Notes 6 and 8, while performing his duties as Executive Chairman of Inovio.

Table of Contents

EXHIBIT INDEX

The following exhibits are being filed with this Current Report on Form 10-K.

Exhibit Number	Description of Exhibit
3.1	Certificate of Incorporation of Netventory Solutions, Inc. (incorporated by reference to our Registration Statement on Form S-1, filed on September 3, 2008)
3.2	Amended and Restated Bylaws (incorporated by reference to our Current Report on Form 8-K, filed on March 6, 2012)
3.3	Articles of Merger dated February 9, 2011 (incorporated by reference to our Current Report on Form 8-K, filed on March 3, 2011)
3.4	Certificate of Change dated February 9, 2011 (incorporated by reference to our Current Report on Form 8-K, filed on March 3, 2011)
3.5	Certificate of Correction dated March 9, 2011 (incorporated by reference to our Current Report on Form 8-K, filed on March 14, 2011)
4.1	Form of Series A Warrant (incorporated by reference to our Current Report on Form 8-K, filed on June 27, 2011)
4.2	Form of Series B Warrant (incorporated by reference to our Current Report on Form 8-K, filed on June 27, 2011)
4.3	Form of Series C Warrant (incorporated by reference to our Current Report on Form 8-K, filed on June 27, 2011)
4.4	Form of Common Stock Purchase Warrant (incorporated by reference to our Current Report on Form 8-K, filed on March 29, 2012)
10.1*	Asset Purchase Agreement, dated March 14, 2011, by and between OncoSec Medical Incorporated and Inovio Pharmaceuticals, Inc. (incorporated by reference to our Quarterly Report on Form 10-Q, filed on June 14, 2011)
10.2*	Cross-License Agreement, dated March 24, 2011 by and between OncoSec Medical Incorporated and Inovio Pharmaceuticals, Inc. (incorporated by reference to our Quarterly Report on Form 10-Q, filed on June 14, 2011)
10.3#	Employment Agreement with Punit Dhillon dated May 18, 2011 (incorporated by reference to our Quarterly Report on Form 10-Q, filed on June 14, 2011)
10.4#	Employment Agreement with Veronica Vallejo dated May 18, 2011 (incorporated by reference to our Quarterly Report on Form 10-Q, filed on June 14, 2011)
10.5#	Employment Agreement with Michael Cross dated May 18, 2011 (incorporated by reference to our Quarterly Report on Form 10-Q, filed on June 14, 2011)
10.6	Form of Private Placement Subscription Agreement (incorporated by reference to our Current Report on Form 8-K, filed on March 24, 2011)
10.7	Form of Share Purchase Warrant (incorporated by reference to our Current Report on Form 8-K, filed on March 24, 2011)
10.8	Securities Purchase Agreement, dated June 21, 2011, by and among OncoSec Medical Incorporated and the purchasers identified therein (incorporated by reference to our Registration Statement on Form S-1/A, filed on September 6, 2011, File No. 333-175779)
10.9	Form of Registration Rights Agreement, dated June 24, 2011, by and among OncoSec Medical Incorporated and the purchasers identified therein (incorporated by reference to our Current Report on Form 8-K, filed on June 27, 2011)

Table of Contents

10.10	Placement Agent Agreement between Rodman & Renshaw and OncoSec Medical Incorporated dated June 1, 2011, as amended on June 21, 2011 (incorporated by reference to our Registration Statement on Form S-1/A, filed on October 11, 2011, File No. 333-175779)
10.11	Consulting Agreement between Vista Partners LLC and OncoSec Medical Incorporated dated April 27, 2011, as amended on June 6, 2011 (incorporated by reference to our Registration Statement on Form S-1/A, filed on September 6, 2011, File No. 333-175779)
10.12	Amendment to Asset Purchase Agreement, dated September 28, 2011, by and between OncoSec Medical Incorporated and Inovio Pharmaceuticals, Inc. (incorporated by reference to our Current Report on Form 8-K, filed on October 3, 2011)
10.13	Share Purchase Warrant (issued to Inovio Pharmaceuticals, Inc. on September 28, 2011) (incorporated by reference to our Current Report on Form 8-K, filed on October 3, 2011)

10.14	Placement Agent Agreement between Rodman & Renshaw and OncoSec Medical Incorporated dated January 23, 2012 (incorporated by reference to our Registration Statement on Form S-1, filed on January 24, 2012, File No. 333-179146)
10.15	Amendment Agreement to Placement Agent Agreement, dated March 12, 2012 (incorporated by reference to our Registration Statement on Form S-1/A, filed on March 12, 2012, File No. 333-179146)
10.16	Securities Purchase Agreement, dated March 23, 2012, by and among Oncosec Medical Incorporated and each purchaser identified on the signature pages thereto (incorporated by reference to our Current Report on Form 8-K, filed on March 29, 2012)
10.17	Second Amendment to Asset Purchase Agreement, dated March 24, 2012, by and between OncoSec Medical Incorporated and Inovio Pharmaceuticals, Inc. (incorporated by reference to our Current Report on Form 8-K, filed on March 29, 2012)
10.18	Common Stock Purchase Warrant (issued to Inovio Pharmaceuticals, Inc. on March 24, 2012) (incorporated by reference to our Current Report on Form 8-K, filed on March 29, 2012)
16.1	Letter dated June 7, 2011 from Silberstein Ungar, PLLC (incorporated by reference to our Current Report on Form 8-K/A, filed on June 10, 2011)
21.1	Subsidiaries of the registrant (incorporated by reference to our Registration Statement on Form S-1, filed on July 25, 2011, File No. 333-175779)
23.1	Consent of Independent Registered Public Accounting Firm, Mayer Hoffman McCann P.C.
31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14 and 15d-14 promulgated under the Securities Exchange Act of 1934
31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14 and 15d-14 promulgated under the Securities Exchange Act of 1934
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.INS+	XBRL Instant Document
101.SCH++	XBRL Taxonomy Extension Schema Document
101.CAL++	XBRL Taxonomy Extension Calculation Linkbase Document

Table of Contents

101.DEF++	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB++	XBRL Taxonomy Extension Label Linkbase Document
101.PRE++	XBRL Taxonomy Extension Presentation Linkbase Document

Management contract or compensatory plan or arrangement.
* Confidential treatment has been granted or requested with respect to portions of this exhibit pursuant to Rule 24b-2 of the Securities Exchange Act of 1934 and these confidential portions have been redacted from the filing that is incorporated by reference. A complete copy of this exhibit, including the redacted terms, has been separately filed with the Securities and Exchange Commission.
++ Furnished herewith. In accordance with Regulation S-T, the XBRL-related information in Exhibit 101 to this Annual Report on Form 10-K shall be deemed to be "furnished" and not "filed."

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the incorporation by reference in Registration Statement No. 333-183544 on Form S-1, Registration Statement No. 333-179146 on Form S-1, Registration Statement No. 333-175779 on Form S-1 and Registration Statement No. 333-176537 on Form S-8 of our report dated October 12, 2012, with respect to the consolidated financial statements of **OncoSec Medical Incorporated and Subsidiary** (which report includes an explanatory paragraph relating to the uncertainty of the Company's ability to continue as a going concern) as of and for the years ended July 31, 2012 and 2011, included in this Annual Report on Form 10-K for the years ended July 31, 2012 and 2011 and for the period from inception (February 8, 2008) to July 31, 2012.

/s/ Mayer Hoffman McCann P.C.
San Diego, California
October 15, 2012

Exhibit 31.1

CERTIFICATIONS

I, Punit Dhillon, certify that:

1. I have reviewed this Annual Report on Form 10-K of OncoSec Medical Incorporated;

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

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

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

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

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

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

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

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

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

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

October 15, 2012

/s/ PUNIT DHILLON
Punit Dhillon
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Veronica Vallejo, certify that:

1. I have reviewed this Annual Report on Form 10-K of OncoSec Medical Incorporated.

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

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

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

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

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

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

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

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

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

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

October 15, 2012

/s/ VERONICA VALLEJO
Veronica Vallejo
VP Finance and Controller
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned, Punit Dhillon, President and Chief Executive Officer of OncoSec Medical Incorporated (the "**Company**") hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Annual Report on Form 10-K of the Company for the period ended July 31, 2012 (the "**Report**") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

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

Dated: October 15, 2012

By: /s/ PUNIT DHILLON
Punit Dhillon
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to OncoSec Medical Incorporated and will be retained by OncoSec Medical Incorporated and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned, Veronica Vallejo, VP Finance and Controller of OncoSec Medical Incorporated (the "**Company**") hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Annual Report on Form 10-K of the Company for the period ended July 31, 2012 (the "**Report**") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

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

Dated: October 15, 2012

By: /s/ VERONICA VALLEJO
Veronica Vallejo
VP Finance and Controller
(Principal Financial Officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to OncoSec Medical Incorporated and will be retained by OncoSec Medical Incorporated and furnished to the Securities and Exchange Commission or its staff upon request.