ONCOSEC MEDICAL Inc
Form 10-K
October 25, 2017

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, 2017

OR

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

For the transition period from to

Commission file number 000-54318

ONCOSEC MEDICAL INCORPORATED

(Exact name of registrant as specified in its charter)

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

5820 Nancy Ridge Drive

San Diego, CA 92121

(Address of principal executive offices)(Zip Code)

7(855) 662-6732

(Registrant's telephone number, including area code)

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

Title of Class:	**Name of Exchange on which Registered:**
Common Stock, par value $0.0001 per share	**The NASDAQ Stock Market LLC (NASDAQ Capital Market)**

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

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

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 [ ]

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. [ ]

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

Large accelerated filer [ ]	Accelerated filer [ ]
Non-accelerated filer [ ] (Do not check if a smaller reporting company)	Smaller reporting company [X]
	Emerging growth company [ ]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. [ ]

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

The aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant as of January 31, 2017, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $22,001,286, computed by reference to the price at which the registrant's common stock was last sold on such date, as reported by the NASDAQ Capital Market. Shares of common stock held by the registrant's officers and directors and holders of 10% or more of the outstanding shares of the registrant's common stock have been excluded from this calculation because such persons may be deemed to be affiliates of the registrant; however, this determination of affiliate status is not, and shall not be considered, a determination of affiliate status for any other purpose.

As of October 10, 2017, there were 22,099,840 outstanding shares of the Company's common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement for the 2017 Annual Meeting of Stockholders, which is expected to be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended July 31, 2017, are incorporated by reference in Part III of this Annual Report on Form 10-K to the extent stated herein.

TABLE OF CONTENTS

2

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND OTHER MATTERS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act. Forward-looking statements relate to future events or circumstances or our future performance and are based on our current assumptions, expectations and beliefs about future developments and their potential effect on our business. All statements in this report that are not statements of historical fact could be forward-looking statements. 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 thes other comparable terminology. The forward-looking statements in this report include statements about, among other things: the status, progress and results of our clinical programs; our ability to obtain regulatory approvals for, and the level of market opportunity for, our product candidates; our business plans, strategies and objectives, including plans to pursue collaboration, licensing or other similar arrangements or transactions; our expectations regarding our liquidity and performance, including our expense levels, sources of capital and ability to maintain our operations as a going concern; the competitive landscape of our industry; and general market, economic and political conditions.

Forward-looking statements are only predictions and are not guarantees of future performance, and they are subject to known and unknown risks, uncertainties and other factors, including the risks described under “Risk Factors” in Part I, Item IA of this report and similar discussions contained in the other documents we file from time to time with the Securities and Exchange Commission, or the “SEC”. Moreover, we operate in a rapidly evolving industry in which new risks and uncertainties continuously emerge, and it is not possible for us to predict all of the risks we may face or assess the impact of all uncertainties or other factors on our business or the extent to which any factor or combination of factors could cause actual results to differ from our current expectations, assumptions or beliefs. In light of these risks, uncertainties and other factors, the forward-looking events and circumstances described in this report may not occur and our results, levels of activity, performance or achievements could differ materially from those expressed in or implied by any forward-looking statements we make. As a result, you should not place undue reliance on any of our forward-looking statements. Forward-looking statements speak only as of the date they are made, and unless required to by law, we undertake no obligation to update or revise any forward-looking statement for any reason, including to reflect new information, future developments, actual results or changes in our expectations.

We qualify all of our forward-looking statements by this cautionary note.

* * * * *

Unless the context indicates otherwise, all references to OncoSec, our Company, we, us and our in this report refer to OncoSec Medical Incorporated and its consolidated subsidiaries.

We own registered trademark rights in the United States to ImmunoPulse®, and we have filed applications in the United States and in certain foreign jurisdictions to register trademark rights to ImmunoPulse, OncoSec and NeoPulse. Other service marks, trademarks or trade names used in this report are the property of their respective owners. We do not use the ® or ™ symbol in each instance in which one of our registered or common law trademarks appears in this report, but this should not be construed as any indication that we will not assert our rights thereto to the fullest extent permissible under applicable law.

We make available, free of charge, on our website, www.oncosec.com, our reports on Forms 10-K, 10-Q, 8-K and amendments thereto, as soon as reasonably practical after we file such materials with the SEC. Any information that we include on or link to our website is not, and should not be considered, part of this report.

PART I

ITEM 1. BUSINESS

Overview

We are a biotechnology company focused on designing, developing and commercializing innovative therapies and proprietary medical approaches to stimulate and guide an anti-tumor immune response for the treatment of cancer. Our core platform technology, ImmunoPulse®, is a drug-device therapeutic modality comprised of a proprietary intratumoral electroporation delivery device. The ImmunoPulse® platform is designed to deliver DNA-encoded drugs directly into a solid tumor and promote an inflammatory response against cancer. The ImmunoPulse® device can be adapted to treat different tumor types, and consists of an electrical pulse generator, a reusable handle and disposable applicators. Our lead product candidate, ImmunoPulse® IL-12, uses our electroporation device to deliver a DNA-encoded interleukin-12, or IL-12, called tavokinogene telseplasmid, or tavo, with the aim of reversing the immunosuppressive microenvironment in the tumor and engendering a systemic anti-tumor response against untreated tumors in other parts of the body.

Our current focus is to pursue our registration-directed study of ImmunoPulse® IL-12 in combination with an approved therapy for melanoma in patients who have shown resistance to or relapse from certain other cancer therapies, which we refer to as the PISCES study. Most of our present activities are directed toward advancing the PISCES study. We also intend to continue to pursue other ongoing or potential new trials and studies related to ImmunoPulse® IL-12, all with the goal of obtaining requisite regulatory approvals from the U.S. Food and Drug Administration, or FDA, and comparable regulators in certain other jurisdictions to market and sell this product candidate.

In addition, we are developing our next-generation electroporation devices, including advancements toward prototypes, pursuing discovery research to identify other product candidates that, like IL-12, can be encoded into DNA, delivered intratumorally using electroporation and used to reverse the immunosuppressive mechanisms of a tumor, and aiming to expand our ImmunoPulse® pipeline beyond the delivery of plasmid-DNA encoding for cytokines to include other molecules that may be critical to key pathways associated with tumor immune subversion.

Cancer Immunotherapy Treatments: Background

Many traditional modalities for treating cancer have limited clinical efficacy and are frequently associated with significant negative side effects. Immunotherapy, a relatively new therapeutic modality that has received significant attention in recent years, focuses on modulating the immune system to treat cancer rather than directly killing the cancer cells. Systemic delivery of immune-modulating proteins, such as interleukin-2, or IL-2, and IL-12, has shown early indications of efficacy, but with significant mechanism-based toxicity.

Recent attention has also focused on the development of monoclonal antibody drugs, which target critical “immune checkpoint” proteins and augment anti-tumor immunity. Therapies using monoclonal antibodies, such as anti-CTLA-4 (cytotoxic T-lymphocyte-associated protein-4), anti-PD-1 (program cell-death-1) and anti-PD-L1 (programmed death-ligand-1), are being developed for the treatment of several cancers and have been approved for the treatment of some cancers, including metastatic melanoma and metastatic non-small cell lung cancer. Although these new immuno-oncology agents have shown clinical benefit for patients with late-stage cancer across multiple tumor types, only a small subset of the overall patient population responds to these therapies. Certain tumors are able to evade the immune system. We believe that when tumors do not have any immune cells inside (immune desert) or surrounding the tumor (immune excluded), immune checkpoint therapies are less effective or ineffective. These tumors are sometimes referred to as “cold” tumors.

We believe that if we can convert an inactive, or “cold,” tumor with a low frequency of tumor infiltrating lymphocytes, or TILs, that limit the anti-tumor response and remove the interferon signature, into an active, or “hot,” tumor that can activate the anti-PD-1 or anti-PD-L1, then we can increase the subset of patients who respond to these therapies. We believe our ImmunoPulse® IL-12 platform addresses this objective, as it has the potential to reshape the tumor microenvironment in patients with an immunologically cold tumor into a highly-inflamed tumor with a fully engaged anti-PD-1 or anti-PD-L1 axis. The immunological components that enable this conversion relates to the intratumoral delivery of tavo, which increases the density of TILs, and in the presence of an anti-PD-1 antibody, a disabling of adaptive resistance and maximizing the cytotoxicity. We believe intratumoral tavo can reshape the tumor through innate and adaptive immune mechanisms, which result in a brisk infiltration of TILs in a previously cold tumor.

We believe there is a significant unmet medical need for patients who may not respond well to these therapies on their own. In particular, for patients who have “cold” tumors and would be unlikely to respond to an immune checkpoint therapy alone, our focus is to develop a therapeutic that has the ability to directly modulate the microenvironment of the tumor by stimulating a local immune reaction through the intratumroral delivery of IL-12 or other immune-modulating molecules. We believe this would enable important immune cells to enter into the tumor and, in essence, turn the tumor “hot.” In doing so, we believe intratumoral delivery of immune-modulating molecules, such as IL-12, could be used as a monotherapy, and importantly, could provide a strong biological rationale for treatment in combination with immune checkpoint inhibitors, such as anti-PD-1 or anti-CTLA-4.

Our Lead Product Candidate: ImmunoPulse® IL-12

Our lead product candidate, ImmunoPulse® IL-12, is a drug-device combination. The drug consists of a plasmid construct called tavo, which encodes IL-12, which is delivered into a tumor using our proprietary electroporation device. A Phase I clinical trial in metastatic melanoma using electroporation to deliver plasmid-DNA encoding for IL-12 was completed in 2008. The data from this trial indicated that the in vivo gene transfer of IL-12 DNA using electroporation in metastatic melanoma was well-tolerated. In addition, anti-tumor activity was observed after a single cycle of treatment, including two complete responses. Importantly, regression in distant, non-injected/non-electroporated lesions was also observed, suggesting that local treatment with ImmunoPulse® IL-12 may lead to a systemic anti-tumor immune response.

In February 2017, we received Fast Track designation from the FDA for ImmunoPulse® IL-12. The Fast Track program was established to facilitate the development and expedite the review of new drugs that are intended to treat serious or life-threatening conditions and demonstrate the potential to address unmet medical needs. Drugs that receive this designation benefit from more frequent communications and meetings with the FDA to review the drug’s development plan, including the design of proposed clinical trials and the extent of data needed for approval. Fast Track designated drugs may also qualify for expedited FDA review and a rolling Biologics License Application, or BLA, review, if certain criteria are met.

Clinical Programs

All of our ongoing and planned clinical programs relate to our lead product candidate, ImmunoPulse® IL-12. Our current primary focus is to pursue our planned Phase II registration-directed study of ImmunoPulse® IL-12 in combination with Merck & Co., Inc.’s, or Merck’s, approved anti-PD-1 antibody KEYTRUDA® in patients with advanced, metastatic (stage 3-4) melanoma who have shown resistance to or relapse from an anti-PD-1 therapy (OMS-I103). We refer to this study as PISCES.

In addition, we have two ongoing clinical trials related to ImmunoPulse® IL-12, although we are not currently actively pursuing these trials: A pilot trial of ImmunoPulse® IL-12 monotherapy in patients with triple negative breast cancer (OMS-I140); a Phase II investigator-sponsored trial with ImmunoPulse® IL-12 plus pembrolizumab in patients with advanced, metastatic melanoma (OMS-I102); and a Phase II trial of ImmunoPulse® IL-12 as a monotherapy in patients with metastatic melanoma (OMS-I100).

OMS-I103: The PISCES Study: An Open-Label Phase II Trial of Intratumoral pIL-12 plus Electroporation in Combination with Intravenous Pembrolizumab in Patients with Stage 3-4 Melanoma who are Progressing on either Pembrolizumab or Nivolumab Treatment

Melanoma is a deadly form of skin cancer with rapidly rising incidences both in the U.S. and internationally. The National Cancer Institute Surveillance, Epidemiology and End Results Program estimates that over 75,000 new melanoma cases were diagnosed in 2016, representing 4.5% of all new cancer cases in the U.S. Overall, the five-year survival rate for melanoma, regardless of disease stage, is over 90%; however, for patients who present with metastatic disease and receive systemic treatment, the five-year survival rate is considerably lower at less than 18%. Despite recent advances in therapy, advanced metastatic melanoma continues to present significant morbidity and mortality.

The PISCES study is a Phase II, 2-stage, open-label, single-arm, multi-center study of ImmunoPulse® IL-12 in combination with an intravenous anti-PD-1 antibody, Merck's KEYTRUDA®, in patients with histological diagnosis of melanoma with progressive locally advanced or metastatic disease defined as stage 3 or 4.

Patients in the study must be refractory to certain anti-PD-1 monoclonal antibodies, namely pembrolizumab (KEYTRUDA®) or nivolumab, as either monotherapy or in combination with other approved checkpoint inhibitors or targeted therapies according to their approved label, or relapsed as documented disease progression within 24 weeks of the last dose of anti-PD1 monoclonal antibodies. The primary endpoint of the study is to assess efficacy over 24 weeks of intratumoral pIL-12-EP in combination with pembrolizumab in patients with unresectable or metastatic melanoma who previously have progressed on certain approved anti-PD-1 antibodies (either as monotherapy or in combination with other approved checkpoint inhibitors).

In May 2017, we submitted to the FDA an investigational new drug application, or IND, for the PISCES study, which, in general, must become accepted and effective before any human clinical trials may begin in the United States. Additionally, in May 2017, we entered into a clinical trial collaboration and supply agreement with a subsidiary of Merck in connection with the PISCES study, in which we have agreed to sponsor and fund the study and Merck has agreed to manufacture and supply KEYTRUDA® for use in the study. The PISCES study opened for enrollment in October 2017.

OMS-I140: Biomarker-Focused Pilot Study of ImmunoPulse® IL-12 in Patients with Triple Negative Breast Cancer

Worldwide, approximately 170,000 new cases of triple negative breast cancer, or TNBC, are diagnosed each year, accounting for approximately 15% of all breast cancer. TNBC frequently affects younger women (less than 40 years old) and is characterized by higher relapse rates than estrogen receptor positive breast cancers. TNBC is also associated with an increased risk of recurrence, both locally and in distant sites including the lungs and brain. Advanced TNBC remains a significant area of unmet medical need and there is no established standard-of-care. Treatment generally includes chemotherapy, with or without radiation and/or surgery, but no treatment regimen has demonstrated clear superiority.

In January 2017, we amended the clinical protocol for our biomarker-focused pilot study of ImmunoPulse® IL-12 in patients with TNBC to improve the enrollment rate, as it had been slow to enroll, and in September 2017, we enrolled half the patients needed for the study. The study is now open for enrollment and is ongoing. The primary objective of the study is to evaluate the potential of ImmunoPulse® IL-12 to promote a pro-inflammatory molecular and histological signature, and the secondary objectives include the evaluation of safety and tolerability; evaluation of local ablation effect (% of necrosis) and description of other evidence of anti-tumor activity. The study is being conducted at Stanford University and is designed to assess whether ImmunoPulse® IL-12 increases TNBC tumor

immunogenicity by driving a pro-inflammatory cascade that leads to increases in cytotoxic TILs. The presence and number of TILs is thought to be a key requirement for promoting the anti-tumor activity of monoclonal antibodies, such as anti-PD-1. By driving cytotoxic immune cells into the tumor, ImmunoPulse® IL-12 could be used in combination with checkpoint blockade therapies, which have reported some, but limited, activity in TNBC.

OMS-I102: An Open-Label Phase II Trial of ImmunoPulse® IL-12 plus Pembrolizumab in Patients with Advanced, Metastatic Melanoma

In August 2015, we enrolled the first patient in our Phase II investigator-sponsored clinical trial led by the clinicians at the University of California, San Francisco, or UCSF. The primary endpoint of this study is to assess the anti-tumor efficacy of the combination of intratumoral pIL-12 by electroporation and Merck's KEYTRUDA® in patients with melanoma who are progressing or have progressed on anti-PD-1 therapy. The primary endpoint of the study is the best overall response rate of the combination regimen in patients whose tumors are characterized by low numbers of TILs. Recent data suggest that patients whose tumors are not associated with TILs or CD8+ T-cells at the tumor margin are unlikely to respond to anti-PD-1 therapies such as KEYTRUDA®, while those who are CTLA-4 and PD-L1 positive and have increased TILs are more likely to have a clinical benefit. Therefore, therapies that promote TIL generation and PD-L1 positivity may play an important role in augmenting the clinical efficacy of the anti-PD1/PD-L1 agents.

This hypothesis is being tested in this trial by enrolling a low-TIL metastatic melanoma patient population. Initial data was presented in February 2017 and the trial stopped enrolling patients in September 2017. The overall response rate in the 22-patient population was 43% at week 24 (best overall response rate was 48%), with one significant adverse Grade-3 event and one Grade-2 event, both of which were resolved with antibiotics or over-the-counter medicines. Based on these results, we believe the combination therapy studied in the trial was well-tolerated. Ongoing analysis of days to best overall response, duration of response and progression free survival are underway as the existing patients are followed on a long-term basis.

OMS-I100: An Open-Label Phase II Trial of ImmunoPulse® IL-12 Monotherapy in Patients with Metastatic Melanoma

On December 5, 2014, we released top-line six-month data from a Phase II repeat dose trial of tavo in patients with stage 3 and 4 metastatic melanoma. In this study, which was conducted at UCSF, 30 patients with stage 3 and 4 melanoma received up to four cycles of tavo delivered by electroporation on days one, five and eight of each 12-week cycle. Of the 29 patients in the study who were evaluable, an objective response rate of 31% (9/29) was observed, with 14% (4/29) of patients having a complete response and 17% (5/29) of patients having a partial response. Regression of distant lesions was seen in 50% (13/26) of patients with evaluable non-injected, non-electroporated lesions. Clinical endpoints included objective response rate, local and distant lesion regression, duration of response, overall survival and safety. We believe the results of this study demonstrated that multiple treatment cycles of ImmunoPulse® IL-12 were well-tolerated, with no treatment-limiting toxicities. The majority of adverse events were localized to the treatment site and were Grade-1 or -2 in severity; however, five patients experienced at least one serious adverse event, four of which were not related to study treatment and one of which was assessed as definitely related to the combination of pIL-12 + electroporation but unlikely to be related to the individual components of the study treatment. No adverse events led to permanent discontinuation of study treatment, and no adverse events resulted in death.

In order to continue to acquire clinical and immune correlational data on melanoma patients treated with ImmunoPulse® IL-12, the protocol of the OMS-I100 study was amended in February 2014 to enroll up to 30 patients. Enrollment in OMS-I100 Addendum was completed in March 2016, the data base is locked and the clinical study report is pending.

Following participation in this trial, some patients participated in a separate study in which they received an anti-PD-1/PD-L1 therapy. Long-term, follow-up data regarding these patients suggest that ImmunoPulse® IL-12 may prime and enhance response rates to PD-1/PD-L1 blockade. Of the 29 patients who completed ImmunoPulse® IL-12, 14 subsequently received an anti-PD-1/PD-L1 treatment. Overall, five of these 14 patients (36%) experienced a complete response and four patients experienced a partial response (29%), for an overall response rate of 65%. Two patients experienced stable disease (14%) and three patients experienced progressive disease (21%). We believe this retrospective sequential data could suggest combinatorial potential of an immune-priming effect with ImmunoPulse® IL-12 prior to anti-PD-1/PD-L1 therapy.

Other Trials and Studies

In addition to the trials and studies described above, we have also pursued and closed Phase II clinical trials in patients with Merkel cell carcinoma, head and neck cancer and cutaneous T-cell lymphoma, although we are no longer pursuing any of these clinical programs.

Our ImmunoPulse® Platform

The effectiveness of many drugs and DNA-based therapeutics is dependent upon their crossing the cell membrane. 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, a mechanism known as “electroporation.”

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 ImmunoPulse® therapeutic approach. Our electroporation delivery system consists of an electrical pulse generator, a reusable applicator handle and disposable applicators. While the extent of membrane permeabilization depends on various electrical, physical, chemical, and biological parameters, research with electroporation delivery has demonstrated an improvement in cellular uptake of chemical molecules such as chemotherapeutic agents (e.g., bleomycin and cisplatin), and nucleic acids (e.g., DNA and RNA).

Multiple viral and non-viral delivery modalities have been developed to deliver nucleic acids into cells, however, many of these methods have faced challenges related to the safe and efficient expression of the DNA-encoded biologic into the intended target cells. For example, viral mediated delivery technologies appear to be efficient at transfecting cells, but they have suffered from significant safety issues related to the immunogenicity of the viral vector, shedding of the virus, and potential integration of the viral DNA into the host genome. Other non-viral delivery methods have employed the use of nanotechnology to coat the DNA with fat molecules, called lipids. Although these lipid nanoparticle technologies have been used extensively in the clinic to deliver DNA-encoded biologic agents, few particles have been developed with the ability to specifically target cancer cells; instead, many of these particles naturally target the liver, which can lead to potential liver toxicities.

Like viral vectors and lipid nanoparticle technologies, electroporation has been used extensively in the clinic to deliver multiple therapeutic agents, including DNA. However, unlike these other technologies, electroporation has not seen the same safety concerns. In fact, the use of electroporation to deliver bleomycin intratumorally has been approved for use in Europe for cancers, such as basal cell carcinoma, and has been accepted across many European countries, including the United Kingdom.

Our ImmunoPulse® platform employs an electroporation system designed to create favorable conditions to deliver plasmid DNA encoding immunotherapeutic cytokines directly into cells of the tumor microenvironment. The cytokine-encoding plasmid is first injected into the tumor. A needle-electrode array then delivers the electrical pulses produced in the pulse generator. In addition, we are continuing to advance the field of electroporation by developing our tissue-based real-time adaptive control electroporation, or TRACE, technology. The TRACE technology uses electrochemical impedance spectroscopy, or EIS, to continuously evaluate the electrical properties of the tissue. By doing so, TRACE has the ability to modulate the electric field in real-time, thus optimizing the electroporation conditions and improving the transfection of the DNA into the cells.

Our lead product candidate, ImmunoPulse® IL-12, consists of a plasmid construct encoding the proinflammatory cytokine IL-12 that is delivered into the tumor through in vivo electroporation using our ImmunoPulse® technology. We are also researching other DNA-encoded, immunologically-active molecules, with an aim of developing additional immunotherapeutic drugs that, when delivered through electroporation using our ImmunoPulse® platform, may be capable of breaking the immune system's tolerance to cancer.

Commercialization

Strategy

Our primary focus is to continue our clinical development strategy for ImmunoPulse® IL-12, including our currently planned and ongoing Phase II clinical trials discussed under "Clinical Programs" above and potentially other Phase II or subsequent trials we may pursue in the future, which may include trials focused on cancers that have demonstrated a response to anti-PD-1/PD-L1 checkpoint therapies, such as metastatic melanoma.

As a part of our commercialization strategy, we also regularly investigate and evaluate potential collaboration opportunities, to identify rational combinations with existing and emerging monoclonal antibody therapies and other drugs. For instance, we may seek to collaborate with pharmaceutical or biotechnology companies or government agencies to provide us with access to complementary technologies and/or greater resources. In addition, we may seek to expand the applications of our technologies through strategic collaborations or other opportunities, such as in-licensing or strategic acquisitions, and we may seek to out-license our intellectual property to other companies to leverage our technologies for applications that we may not choose to internally and independently development.

Manufacturing and Supply

Currently, we assemble certain components of our electroporation system, which is our proprietary delivery mechanism for our ImmunoPulse IL-12® product candidate, and we utilize the services of contract manufacturers to manufacture the remaining components of these systems and for the manufacture, testing and storage of all of our supply of our plasmid product candidate for clinical trials or other studies. The manufacture of our systems and product supplies requires significant expertise and capital investment, including the use of advanced manufacturing techniques and process controls, and we do not own and have no plans to build our own clinical or commercial manufacturing capabilities. We expect to increase our reliance on third-party manufacturers if and when we commercialize any of our product candidates and systems.

We rely upon a small number of suppliers and manufacturers for our clinical activities, including distributors such as Cryosite, Sherpa, as well as manufacturers such as Richter Helm, VGXI and SGS, which collectively account for 100% of clinical materials; and Minnetronix, which accounts for 50% of electroporation systems support and materials. We believe there are alternate sources of raw material supply and finished goods manufacturing to satisfy our requirements, although transitioning to other vendors, if necessary, could result in significant delay or material additional costs. In addition, for combination trials, we typically rely exclusively on one supplier of the non-company-owned product used in the trial, such as our reliance upon Merck for the supply of KEYTRUDA® in the PISCES study.

We are certified by all appropriate standards and authorities for the limited assembly and manufacture activities we conduct, and we and have established an audited quality management system for these activities. In addition, all contract manufacturers that we use must comply with various requirements enforced by the FDA through its facilities inspection programs. See “Regulation” below for more information.

Competition

The biotechnology industry is intensely competitive. This competitive environment stimulates an ongoing and extensive search for technological innovation and necessitates effective and targeted marketing strategies to communicate the effectiveness, safety and value of products to healthcare professionals in private practice and group practices and payors in managed care organizations, group purchasing organizations, and Medicare and 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 compete against all other developers of cancer treatments, including other immunotherapy treatments as well as other types of treatments for the cancer indications on which we are focused. In particular, a number of companies, some of which are large, well-established pharmaceutical companies, have recently announced development strategies similar to our current focus on our PISCES study, namely the combination of IL-12 and a checkpoint inhibitor to improve response rates in patients who are refractory or who have relapsed on anti-PD-1 therapies either alone or in combination with other therapies, and we view these companies as our most relevant current competitors. These companies include, among others, Bristol Myers-Squibb, Iovance Therapeutics, Syndax, Dynavax Technologies and Idera Pharmaceuticals. In addition, we also compete with other early-stage biotechnology companies for funding and support from healthcare and other investors and potential collaboration relationships with larger pharmaceutical or other companies, as well as for personnel with expertise in our industry. We are smaller, less experienced and less well-funded than many of our competitors, and we have a shorter and less proven operating history and a less recognizable and established brand name than many of our competitors. In addition, some of our competitors have commercially available products, which provide them with operating revenue and other competitive advantages. Furthermore, recent trends in the biotechnology industry are for large drug companies to acquire smaller outfits and consolidate into a smaller number of very large entities, which further concentrates financial, technical and market strength and increases competitive pressure in the industry.

Our competitors may obtain regulatory approval of their product candidates more rapidly than we can or may obtain more robust patent protection or other intellectual property rights to protect their product candidates and technologies, which could limit or prevent us from developing or commercializing our product candidates. If we are able to obtain regulatory approval of one or more of our product candidates, we will face competition from approved products or products under development by larger companies that may address our targeted indications. If we directly compete with these very large entities for the same markets and/or customers, their greater resources, brand recognition, sales and marketing experience and financial strength could prevent us from capturing a share of these markets or customers. 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, less costly or more widely accepted for other reasons than any of our products that obtain regulatory approvals, and our competitors may also be more successful than us in manufacturing, distributing and otherwise marketing their products.

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, coverage and reimbursement by third-party payors, extent of adverse side effects and convenience of treatment procedures. We may not be able to effectively compete in any of these areas. Presently, we compete with other biotechnology companies for funding and support on the basis of our technology platforms and the potential value of our product candidates based on the factors described above.

Intellectual Property

We believe our success and ability to compete depends in large part on our ability to protect our proprietary rights and technologies, including obtaining and maintaining patent, trademark and trade secret protection of our product candidates and their respective components and underlying technologies, including devices, formulations, manufacturing methods and methods of treatment, and appropriately safeguarding unpatented proprietary rights, including trade secrets and know-how. As of October 2017, we owned 28 U.S. patents and several patents in foreign jurisdictions, and we are currently prosecuting several pending patent applications in various jurisdictions. In addition, we have licensed intellectual property rights that allow us to use certain electroporation technology to deliver DNA-based cytokines as an immunotherapy, as well as catheter-based delivery devices. From these in-licensed portfolios, we have access to five issued U.S. patents, one pending U.S. patent application, and several pending patent applications in foreign jurisdictions. We expect to continue to file additional patent applications, if and when appropriate, as our research and development efforts continue. The majority of the patents in our portfolio, including owned and in-licensed patents and fundamental patents directed toward our proprietary technology, expire between 2017 and 2030. Importantly, although we have previously obtained patent protection, through an asset purchase agreement, covering our ImmunoPulse® clinical device, the primary U.S. patent providing such protection expired in September 2017 and our international patent providing such protection will expire in 2018.

In addition, we have entered into a cross-license agreement for certain electroporation technology with Inovio Pharmaceuticals, Inc., or Inovio, including our patent protection for our ImmunoPulse® clinical device (some of which, as noted above, has recently expired or will expire in 2018). Under the terms of the agreement, Inovio has granted us a non-exclusive, worldwide license under certain of its electroporation patents, and in exchange, we have

granted to Inovio an exclusive license to certain of our purchased technology in a limited field of use.

Research and Development

We recognized $12.0 million and $14.7 million in research and development expenses in our fiscal years ended July 31, 2017 and 2016, respectively. From our inception through July 31, 2017, we have incurred an aggregate of approximately $51.7 million of research and development expenses, the significant majority of which relate to our development of immuno-oncology therapeutic product candidates with the use of an electroporation device.

Regulation

Commercialization Approval for our Product Candidates

Biotechnology companies are subject to extensive, complex, costly and evolving government regulation relating to the ability to market and sell any therapeutic or medical device. In the United States, these regulations are principally administered by the FDA and, to a lesser extent, by the U.S. Drug Enforcement Agency, or DEA, and comparable state government agencies, and outside the United States, these regulations are typically administered by various regulatory agencies comparable to the FDA in foreign countries where products or product candidates are researched, tested, manufactured and/or marketed.

United States

General

In the United States, the federal Food, Drug and Cosmetic Act, or FDCA, Controlled Substances Act and other federal and state statutes and regulations, many of which are administered and enforced by the FDA, govern or influence, among other things, the research, development, testing, manufacture, storage, record-keeping, approval, labeling, promotion, marketing, distribution, post-approval monitoring and reporting, sampling, import and export of product candidates such as ours. Under these regulations, we and our contract manufacturers may become subject to periodic inspection of our facilities, quality control and other procedures, and operations and/or the testing of our product candidates by the FDA, DEA and other authorities during and after the approval process for a product candidate, to confirm compliance with all applicable regulations, including current good manufacturing practices and other applicable requirements.

Possible penalties or other consequences for failure to comply with these regulatory requirements include, among others, observations, notices, citations and/or warning letters that could force us to modify our clinical programs or other activities; clinical holds on our ongoing clinical programs; adverse publicity from the FDA or others; the FDA’s suspension of its review of pending applications; fines; product recalls or seizures; total or partial suspension of production and/or distribution; labeling changes; withdrawal of previously granted product approvals; enforcement actions; injunctions and civil or criminal prosecution. Any such sanctions, if imposed, could have a material adverse effect on our business, operating results and financial condition.

Approval Process

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

- completion of non-clinical testing;
- completion of pre-clinical chemistry, manufacturing, and control testing, commonly known as CMC;
- submission to the FDA of an IND for human clinical testing, which must be accepted and 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 product for each intended use;
- for a medical device, submission to the FDA of a premarket approval application or 510(k) premarket notification, which the FDA must review and approve; and
- for a therapeutic, submission to the FDA of a new drug application, or NDA, or biologic license application, or BLA, which the FDA must review and approve.

The pre-clinical and clinical testing and approval process can take many years and 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.

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

Phase I: The product candidate is initially introduced to 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 safety, tolerability and effectiveness.

Phase II: The product candidate 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 product candidate is administered in an expanded patient population at multiple, geographically-dispersed clinical trial sites, to obtain additional evidence of clinical efficacy and safety and to establish the overall risk-benefit relationship of the product candidate.

Phase IV: In some cases, the FDA may condition approval of an NDA or BLA for a product candidate on the sponsor's agreement to conduct additional post-approval clinical trials to further assess the safety and efficacy of the drug or biologic.

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

Once the NDA or BLA submission has been accepted, the FDA begins an in-depth substantive review. Pursuant to the FDA's performance goals, NDA and BLA reviews are to be completed within 10 months, subject to extensions by the FDA. Before approving an NDA or BLA, 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 or BLA. If the FDA determines that an NDA or BLA is not acceptable, then the FDA may outline the deficiencies and often will request

that additional information be provided or additional clinical trials be completed. 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.

Further, even if regulatory approval of a product candidate is obtained, such approval would usually impose limitations on the indicated uses for which the product may be marketed. Additionally, we would be subject to pervasive and continuing regulation by the FDA with respect to any approved product, including requirements related to, among other things, drug or device listing, record-keeping, periodic reporting, product sampling and distribution, manufacturing practices, labeling, advertising, promotion, and reporting of adverse events associated with any approved products. Moreover, we could be required to conduct post-approval studies, such as Phase IV clinical trials, or surveillance programs to monitor the effect of any approved products, and the FDA has the authority to stop or limit further marketing of a product or impose more stringent labeling restrictions based on the results of these post-approval tests and programs or in the event of any unexpected or serious health or safety concern regarding any approved product.

Non-U.S. Regulation

If we pursue research and/or commercialization activities for our product candidates outside the United States, we would need to obtain necessary approvals from the regulatory authorities comparable to the FDA in applicable foreign jurisdictions before we could commence clinical trials or marketing of our product candidates in these jurisdictions. In addition, we would become subject to a variety of foreign regulations regarding safety and efficacy of our product candidates and governing, among other things, clinical trials, commercial activities, manufacture and distribution of our product candidates. The requirements to obtain product approvals vary widely from country to country, and the FDA's approval requirements, review procedures and timelines may not be the same as or even similar to the requirements or a comparable foreign regulator. As a result, even if we obtain regulatory approval for a product candidate in one country, we may be required to undertake additional clinical trials or studies, submit additional information, wait for longer review periods or make other efforts in order to obtain regulatory approvals in other desirable geographic markets.

Healthcare Laws and Regulations

The healthcare industry is heavily regulated, constantly evolving and subject to significant change and fluctuation. The U.S. federal and state healthcare laws and regulations that impact our business include, among others:

the laws and regulations administered and enforced by the FDA, including the FDCA, Controlled Substances Act and other federal statutes and regulations, discussed above;

the federal Anti-Kickback Statute, which generally prohibits, among other things, soliciting, receiving or providing remuneration to induce the referral of an individual for an item or service or the purchasing or ordering of an item or service for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs;

the federal false claims laws, which generally prohibit, among other things, knowingly presenting or causing to be presented claims for payment from Medicare, Medicaid or other third-party payors that are false or fraudulent;

the federal Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act, referred to collectively as the Affordable Care Act, which, in general and among other things, expands the government's investigative and enforcement authority, including requiring pharmaceutical companies to record and disclose to government agencies any transfers of value to doctors and teaching hospitals, and increases the penalties for fraud and abuse, including amendments to the federal False Claims Act and the Anti-Kickback Statute to make it easier to bring suits under these statutes;

the federal Health Insurance Portability and Accountability Act of 1986, or HIPAA, as amended by the federal Health Information Technology for Economic and Clinical Health Act, or HITECH, which, in general and among other things, establish comprehensive federal standards with respect to the privacy, security and transmission of

individually identifiable health information and impose requirements for the use of standardized electronic transactions with respect to transmission of such information; and

state law equivalents of each of these federal laws, such as anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not be preempted by applicable federal laws, thus complicating compliance efforts.

Additionally, the healthcare compliance environment is continuously changing, with proposed revisions to or replacement of the Affordable Care Act at the federal level and with some states mandating implementation of compliance programs, compliance with industry ethics codes, spending limits and reporting to state governments of gifts, compensation and other remuneration to physicians. Further, to the extent we continue to pursue operations in foreign countries, such as our clinical activities in Australia, or if we seek to sell any product that obtains regulatory approval in a foreign country, we would be subject to different reporting and other compliance requirements in multiple jurisdictions, including foreign laws and regulations comparable to the U.S. laws and regulations described above.

All of these laws impose penalties for non-compliance, some of which may be severe. 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 civil or criminal penalties, fines or other monetary damages or orders forcing us to curtail or restructure our operations.

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, 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.

In addition, to the extent we continue to pursue operations in foreign jurisdictions, we will be subject to anti-bribery laws in the United States and applicable foreign jurisdictions, including the U.S. Foreign Corrupt Practices Act, or FCPA, and comparable foreign laws. Further, we are subject to a variety of laws and regulations relating to other matters, including workplace health and safety, labor and employment, public reporting and taxation, among others, and our failure to comply with these laws and regulations may result in a variety of administrative, civil and criminal enforcement measures, including monetary penalties or imposition of sanctions or other corrective requirements.

Our Team

We have assembled a senior management team with many years of experience and success in the biotechnology and pharmaceutical industries, including in research and development, commercialization and financing activities. In addition, we have assembled a clinical and regulatory team experienced in developing and advancing novel

therapeutic approaches through clinical testing and regulatory approvals, including extensive technical, manufacturing, analytical and quality experience to oversee our clinical, manufacturing and testing activities. Our team consists of a relatively small number of employees, as well as consultants and advisors regarding research and development, regulatory, compliance, healthcare and investor and public relations matters. We also expect to engage experts in healthcare and in general business to advise us in various capacities. For instance, we have in the past consulted with various oncology researchers and clinicians to provide counsel as part of our advisory panels for our ImmunoPulse® clinical programs, and we expect to continue to establish consulting and advisory relationships with scientific, clinical and medical experts in academia and industry to assist us with FDA submissions, clinical testing and identification and development of new product candidates.

As of July 31, 2017, we had a total of 35 employees, including 34 full-time employees and one part-time employee. None of our employees is represented by a labor union or covered by a collective bargaining agreement, and we believe that our relations with our employees are good.

Corporate Information

We were incorporated under the laws of the State of Nevada in February 2008 under the name Netventory Solutions Inc. to pursue the business of inventory management solutions. In March 2011, we completed a merger with our subsidiary to change our name to "OncoSec Medical Incorporated," and we commenced operations as a biotechnology company upon our acquisition of assets from Inovio related to the use of drug-medical device combination products for the treatment of various cancers. Our principal executive offices are located at 5820 Nancy Ridge Drive, San Diego, California 92121, and the telephone number at our principal executive office is (855) 662-6732. Our website address is www.oncosec.com. Information contained on our website is not, and should not be considered, part of this report.

ITEM 1A. RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider each of the following risks and all of the other information contained in this report and the other documents we file with the SEC before making any investment decision with respect to our securities. If any of the risks described below materialize, our business, financial condition, results of operations, prospects or stock price could be materially and adversely affected. The risks described below are not the only risks we face. Additional risks and uncertainties not currently known to us may also materially and adversely affect our business operations and financial condition or the price of our common stock.

Risks Related to Our Business

We have never generated, and may never generate, revenue from our operations.

We have not generated any revenue from our operations since our inception, and we do not anticipate generating meaningful, or any, revenue in the near term. During our fiscal year ended July 31, 2017, we incurred a net loss of approximately $21.4 million, and from inception through July 31, 2017, we have incurred an aggregate net loss of approximately $94.9 million. We will need significant additional funding to continue our operations and pursue our strategic plans, including continued development of ImmunoPulse® IL-12. Although we have been and expect to continue to tightly manage our operating expenses, we expect our cumulative operating expenses will continue to increase as we further our development activities and pursue FDA approval for one or more of our product candidates.

Because of the numerous risks and uncertainties associated with our product development and commercialization efforts, many of which are discussed in these risk factors, we are unable to predict the extent of our future losses or

when or if we will generate meaningful revenue or become profitable, and it is possible we will never achieve these goals. Our failure to develop our investments in our proprietary technologies and product candidates into revenue-generating operations 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.

We have limited working capital and a history of losses, which raises substantial doubt as to whether we will be able to continue as a going concern.

We anticipate that, based on the amount of cash we have on hand (taking into account the expected aggregate net proceeds from our October 2017 equity financings) and our current rate of cash consumption, we could continue operations to the third calendar quarter of 2018 without a significant change in our business plan or reduction in spending. However, we will need additional capital after that time to maintain our current level of operations or before that time to ramp up development or other efforts. As a result, our ability to continue as a going concern will depend upon the availability and terms of future funding.

Our ability to obtain additional financing will depend on a number of factors, including, among others, our ability to generate positive data from our clinical and pre-clinical studies, the condition of the capital markets and the other risks described in these risk factors. If any one of these factors is unfavorable, we may not be able to obtain additional funding, in which case, our business could be jeopardized and we may not be able to continue our operations or pursue our strategic plans. If we are forced to scale down, limit or cease operations, our stockholders could lose all of their investment in our Company.

We will need to raise additional capital to continue operating our business, and additional funds may not be available when needed, on acceptable terms or at all.

As of July 31, 2017, we had cash and cash equivalents of approximately $11.4 million and, as of that date, we estimated our cash requirements for the following 12 months to be approximately $21.0 million. As a result, even taking into account the expected aggregate net proceeds from our October 2017 equity financings, we do not believe we have sufficient cash on-hand to support our operations for the next 12 months, and we expect that we will require additional funding by the third calendar quarter of 2018. We do not generate any cash from our operations, and we do not currently have any firm commitments for future capital. Consequently, we will need significant additional capital to continue operating our business and fund our planned operations.

Historically, we have raised the majority of the funding for our business through offerings of our common stock and warrants to purchase our common stock, including our October 2017 equity financings. Although we are exploring other ways of funding our operations that involve less dilution to our existing stockholders, including, among others, technology licensing or other collaboration arrangements, debt financings or grants, we have not successfully established or raised any funds through any of these types of arrangements, and we may need to continue to seek funding for our operations through additional dilutive public or private equity financings.

If we issue equity or convertible debt securities to raise additional funds, our existing stockholders would experience further dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we incur debt, our fixed payment obligations, liabilities and leverage relative to our equity capitalization would increase, which could increase the cost of future capital. Further, the terms of any debt securities we issue or borrowings we incur, if available, could impose significant restrictions on our operations, such as limitations on our ability to incur additional debt or issue additional equity or other operating restrictions that could adversely affect our ability to conduct our business, and any such debt could be secured by any or all of our assets pledged as collateral. Additionally, we may incur substantial costs in pursuing future capital, including investment banking, legal and accounting fees, printing and distribution expenses and other costs.

Moreover, equity or debt financings or any other source of capital may not be available to us when needed or at all, or, if available, may not be available on commercially reasonable terms. Weak economic and capital market conditions generally or uncertain conditions in our industry could increase the challenges we face in raising capital for our operations. In recent periods, the capital and financial markets for early and development-stage biotechnology and life science company stocks have been volatile and uncertain. If we cannot raise the funds that we need, we could be forced to delay or scale down some or all of our development activities or cease all operations, and our stockholders could lose all of their investment in our Company.

We are an early-stage, pre-commercial company with a limited operating history and no commercially available or approved products, which makes assessment of our future viability difficult and which may hinder our ability to

generate revenue and meet our other objectives.

We are an early-stage, pre-commercial 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. Although we are pursuing several oncology product candidates, our primary product candidate, ImmunoPulse® IL-12, is in the initial stages of two Phase II combination clinical trials. As a result, none of our product candidates are near commercial availability. Additionally, although we are investigating licensing and partnering opportunities, no such opportunities have been finalized and, even if completed, we do not expect that these potential opportunities would generate any significant near-term revenue. Our operations to date have been limited to organizing, staffing and financing, applying for patent rights, undertaking clinical trials of ImmunoPulse® IL-12 and engaging in other research and development activities, including pre-clinical and other studies of our other product candidates. We have not demonstrated an ability to obtain regulatory approval of a product candidate, manufacture commercial-scale products, or conduct the sales and marketing activities necessary for successful product commercialization. Consequently, the revenue-generating potential of our business is unproven and uncertain.

In addition, because of our short operating history, we have limited insight into trends that may emerge and affect our business or our industry. We will be subject to the risks, uncertainties and difficulties frequently encountered by early-stage companies in evolving markets, and we may not be able to successfully address any or all of these risks and uncertainties. Further, errors may be made in predicting and reacting to relevant business or industry trends. The occurrence of any of these risks could cause our business, results of operations, and financial condition to suffer or fail.

We are significantly dependent on the success of our ImmunoPulse® technology platform and our product candidates based on this platform, including our lead product candidate ImmunoPulse® IL-12.

We have invested, and we expect to continue to invest, significant efforts and financial resources in the development of product candidates based on our ImmunoPulse® technology, including primarily our lead primary product candidate ImmunoPulse® IL-12. Our ability to generate revenue, which may not occur for the foreseeable future, if ever, will depend heavily on the successful development, regulatory approval and commercialization of one or more of these product candidates.

The success of ImmunoPulse® IL-12 or any other product candidates based on our ImmunoPulse® technology will depend on a number of factors, including, among others:

- our ability to conduct and complete pre-clinical and clinical studies and trials, including the time, costs and uncertainties associated with all aspects of these trials;
- the data we obtain from pre-clinical and clinical testing of the product candidates, including data demonstrating the required level of safety and efficacy of the product candidates (for example, the data we obtain from the PISCES study will be a key factor in determining whether we are able to successfully develop and commercialize our ImmunoPulse® IL-2 platform in melanoma);
- the regulatory approval pathway we choose to pursue for our product candidates in the United States or any other jurisdiction;
- our ability to obtain required regulatory approvals for one or more of our product candidates in the United States and in other jurisdictions, and the time required to obtain these approvals;
- the manufacturing arrangements we are able to establish with third-party manufacturers, both for the manufacture of the product candidates for clinical trial use and for the manufacture of products, if and when approved, on a commercial basis;
- our ability to build an infrastructure capable of supporting product sales, marketing and distribution of any approved products in territories where we pursue commercialization directly;
- our ability to establish commercial distribution agreements with third-party distributors for any approved products in territories where we do not pursue commercialization directly;
- the labeling requirements for any product candidates that are approved, including obtaining sufficiently broad labels that would not unduly restrict patient access;
- acceptance of our products, if and when approved, by patients and the medical community;
- the ability of our products, if and when approved, to effectively compete with other cancer treatments;

a continued acceptable safety profile of any product candidates that are approved following such approval;

our level of success in obtaining and maintaining patent and trade secret protection and otherwise protecting our rights in our intellectual property portfolio;

the levels of coverage and reimbursement we are able to secure for any product candidates that receive regulatory approval;

our ability to establish a commercially viable price for our products, if and when approved; and

delays or unanticipated costs, including those related to any of the foregoing.

If one or more of these factors is unfavorable, we could experience significant delays or we may not be able to successfully commercialize ImmunoPulse® IL-12 or any of our other product candidates, which would materially harm our business.

It may be difficult to identify metastatic melanoma patients due to clinical trial inclusion-exclusion criteria or other factors, which have in the past, and may in the future, lead to delays in enrollment for our trials.

Our PISCES study, along with our other clinical trials, has strict inclusion criteria for patient enrollment. These criteria could present significant obstacles to the timely recruitment and enrollment of a sufficient number of eligible patients into our trials. For example, we experienced slower than expected patient enrollment in our TNBC clinical trial, and we may experience similar delays in any of our other existing or future clinical trials. Any inability to successfully enroll the number of patients meeting the criteria for any of our clinical trials could cause significant delays in the trial and increase the costs associated with the trial, which could materially harm our business and prospects.

Patient enrollment in a clinical trial may be affected by many factors, including:

- the severity of the disease under investigation;
- the design of the study protocol;
- the eligibility criteria for the study;
- the perceived risks, benefits and convenience of administration of the product candidate being studied;
- the competitive disease space with many trials for patients to select from;
- the patient referral practices of physicians; and
- the proximity and availability of clinical trial sites to prospective patients.

Certain characteristics of our ImmunoPulse® platform may negatively impact market acceptance of the platform.

Physicians, patients, and third-party payors may be less accepting of product candidates based on our ImmunoPulse® technology platform due to certain characteristics of this platform. For example, these parties may have concerns about the complexity inherent in a combination therapy approach or the clinical application of electroporation

technology, which is less prevalent in the United States than in certain foreign markets. Moreover, our efforts to educate the medical community and third-party payors about the benefits of any of our technologies and product candidates may require significant resources and may never be successful. As a result, even if any of our product candidates achieve regulatory approval, a lack of acceptance by physicians, third-party payors and patients of the products or underlying technologies could prevent their successful commercialization and could materially limit our revenue potential.

If the commencement or completion of clinical testing for our product candidates is delayed or prevented, we could experience significantly increased costs and our ability to pursue regulatory approval or generate revenue could be delayed or limited.

Clinical trials are very expensive, time-consuming, unpredictable and difficult to design and implement. Even if we are able to complete our ongoing and currently proposed clinical trials and assuming the results are favorable, clinical trials for product candidates based on our technology will continue for several years and may take significantly longer than expected to complete. Even with the Fast Track designation we received from the FDA for ImmunoPulse® IL-12 in February 2017, Phase II and Phase III clinical trials, which can take many years to complete, are still required.

Delays in the commencement or completion of clinical testing could significantly affect our product development costs and business plan. Our PISCES study opened to enrollment in October 2017 and is expected to complete enrollment in the 2018 calendar year, but we do not know and cannot predict whether this study, or any of our other ongoing trials or studies, will be completed on schedule or at all. We also do not know and cannot predict whether any other pre-clinical or clinical trials, including Phase III clinical trials to follow completion of the PISCES study or our ongoing or any other Phase II clinical trials, will be planned or will begin, and in many cases such future trials would be dependent on obtaining favorable results from preceding studies.

The commencement and completion of clinical trials can be delayed or prevented for many reasons, including due to delays or issues related to:

- obtaining clearance from the FDA or comparable international regulatory body and other applicable agencies, including the U.S. National Institutes of Health, 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, and institutional biological committee, or IBC, 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, which can pose challenges for a variety of reasons, including competition from other clinical trial programs for similar indications, requirements for larger than anticipated patient populations, slower than expected enrollment, or higher than predicted rates of patient drop-out or withdrawal;
- 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, death or for any other reason they choose, or who are lost to further follow-up; and
- identifying and maintaining a sufficient supply of necessary products or product candidates, including those produced by third parties, on commercially reasonable terms.

With respect to any clinical trial we plan, the FDA could determine it is not satisfied with our plan or the details of our clinical trial protocols and designs and could put a clinical hold on the proposed trials. Any such determination could delay the commencement of the trials and would be a setback for the commercialization strategy for the product candidate that is the subject of the trial. Additionally, changes in applicable regulatory requirements and guidance may occur, in which case clinical trial protocols may need to be amended to reflect these changes. Any such amendments could require us to resubmit our clinical trial protocols to IRBs or IBCs for reexamination, which could impact the costs, timing and successful completion of a clinical trial. If we experience delays in completion of, or if we terminate, any of our ongoing, planned or future clinical trials, the commercial prospects for our product candidates could be

harmed, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

To the extent we conduct clinical trials of our product candidates in combination with third parties' products, we will face additional risks relating to these products.

To the extent our commercialization strategy includes the combination of our product candidates with third parties' products or product candidates, we may decide to conduct clinical studies to evaluate the combinations. This is true of our melanoma combination investigator-sponsored Phase II clinical trial to assess the combination of ImmunoPulse® IL-12 and Merck's anti-PD-1 antibody KEYTRUDA®, as well as our PISCES study. Although Merck has agreed to provide KEYTRUDA® in connection with PISCES, these combination studies involve additional risks due to their reliance on circumstances outside our control, such as those relating to the availability and marketability of the third-party product involved in the study. If the marketability of third-party products such as KEYTRUDA® is impacted, or if we are unable to secure and maintain a sufficient supply of such third-party products when needed on commercially reasonable terms, our clinical studies could be delayed or we could be forced to terminate these studies. Such a delay or termination could have a material negative impact on our development strategy, business, results of operations, financial condition, and prospects.

We rely on third parties to conduct our clinical trials and other studies, and 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 have entered into, and expect to continue to enter into, agreements with third-party CROs to help us manage critical aspects of the clinical trials we sponsor. We rely on these third parties for the execution of certain of our clinical and pre-clinical studies, and we only control certain aspects of their activities. We and our CROs are required to comply with the FDA's regulations for conducting clinical trials and good clinical practice, as well as the guidelines of the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use. We are also required to harmonize standard operating procedures between companies and conduct periodic internal and vendor audits to ensure compliance. Additionally, the FDA and comparable foreign regulators enforce these good clinical practice regulations through periodic inspections of trial sponsors, principal investigators, CRO trial sites, laboratories and any other entity involved in the completion of the study protocol and processing of data.

If we or our CROs fail to comply with applicable good clinical practice or other regulations, the data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulators may require us to perform additional or repeat clinical trials, which could significantly increase costs and delay the regulatory approval process. Additionally, repeated compliance failures could case the FDA or other regulatory authority to suspend or terminate a clinical trial, which could cause significant approval delays and increased costs. Further, if CROs do not otherwise successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the clinical data they obtain is compromised for any reason, our clinical trials may need to be extended, delayed or terminated or we may not be able to rely on the data produced by the trials. Moreover, if any of our relationships with third-party CROs terminate before completion of a clinical trial, we may not be able to establish arrangements with alternative CROs on commercially reasonable terms, on a timely basis or at all, which could materially delay or jeopardize the trial. Any such occurrence could delay or prevent us from obtaining regulatory approval for or successfully commercializing our product candidates, which could increase our costs, delay our prospects for generating revenue, and otherwise materially harm our results of operations, financial condition and prospects.

We have participated in, and continue to participate in, clinical trials conducted under an approved investigator-sponsored investigational new drug application, and we have little or no control over the conduct or timing of, or FDA communications regarding, these trials.

We have participated in, and continue to participate in, clinical trials conducted under an approved investigator-sponsored IND application, including our melanoma combination investigator-sponsored Phase II clinical trial led by the University of California, San Francisco. In investigator-initiated trials, the investigator typically designs and implements the study and the investigator or its institution acts as the sponsor of the trial. This trial sponsor has control over the design, conduct and timing of the trial, and as a result, we have limited or no control over the commencement, conduct and completion of these investigator-initiated trials. In addition, 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 FDA as it pertains to the safety of the treatment being tested. It is the responsibility of the investigator, as the sponsor of the trial, to be the sole point of contact with the FDA for these communications and to exercise all decision-making authority regarding these or other submissions to the FDA about the trial. Consequently, we have little or no control over the content or timing of these communications, including whether they are timely, accurate or complete. Any failures by the investigator sponsoring these trials could result in reviews, audits, delays or clinical holds by the FDA that could negatively affect the timelines for these trials or jeopardize their completion. As a result, our lack of control over the conduct and timing of, and communications with the FDA regarding, these investigator-sponsored trials exposes us to additional risks, many of which our outside our control and the occurrence of which could severely harm our performance and the commercial prospects for our product candidates.

Regulatory authorities may not approve our product candidates, or any approvals we achieve may be too limited or too late for us to earn meaningful, or any, revenue.

The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of our product candidates are subject to extensive regulation by the FDA and other regulatory authorities in the United States, as well as comparable regulatory bodies in other countries. These regulatory agencies have the authority to delay approval of or refuse to approve our product candidates for a variety of reasons, including, among others, a failure to meet safety and efficacy endpoints in our clinical trials or otherwise to the satisfaction of the regulator, disapproval of our or our partners' trial design, or disagreement with our interpretation of data from pre-clinical studies or clinical trials. As a result, even if our product candidates achieve their endpoints in clinical trials, they still may not be approved by any of these regulatory agencies. Moreover, the requirements to obtain product approvals vary widely from country to country, and the FDA's approval requirements, review procedures and timelines may not be the same as or even similar to the requirements or a comparable foreign regulator. As a result, even if we obtain regulatory approval for a product candidate in one country, we may be required to undertake additional clinical trials or studies, submit additional information, wait for longer review periods or make other efforts in order to obtain regulatory approvals in other desirable geographic markets.

Although we have seen no systemic drug-related adverse events in our trials and studies to date, if we cannot adequately demonstrate through the clinical trial process that a product candidate we are developing is safe and effective, regulatory approval of that product candidate could be delayed or may never be achieved, which could impair our reputation, increase our costs and delay or prevent us from generating revenue. Importantly, success in pre-clinical testing and early clinical studies does not ensure that later clinical trials will generate adequate data to demonstrate the required level of efficacy and safety of an investigational drug. A number of companies in the pharmaceutical and biotechnology industries, including many with greater resources and experience than we have, have suffered significant setbacks in clinical trials, even after obtaining promising results in earlier studies. Further, 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 could have an adverse effect on our business, reputation and results of operations.

Furthermore, because of the substantial competition we face, even if we are ultimately able to achieve regulatory approval for one or more of our product candidates, delays in such regulatory approval could delay, limit or prevent our ability to successfully commercialize our product candidates if competing products obtain approvals before ours and gain market traction that we are not able to disrupt. Moreover, we may be forced to reevaluate our development strategies and plans in the face of setbacks or other delays that could jeopardize the value of any regulatory approval that is obtained, which could include abandoning clinical trial efforts for a product candidate that we no longer believe has promising value as a commercial product. If we are not able to obtain or maintain required regulatory approvals for our product candidates or if we decide or are forced to abandon our efforts to obtain or maintain these approvals, we would have expended significant costs on assets that may never generate any return. Such an outcome would have a material adverse effect on our business, results of operations and financial condition, as well as on our continued viability as a company.

Our in-licensed intellectual property may not provide us with sufficient rights and may not prevent competitors from pursuing similar technology.

In addition to our owned proprietary rights, we have also exclusively licensed certain patents that cover our ImmunoPulse® clinical methods. These patents will expire between 2025 and 2027. These method patents protect the use of a product for a specified method under certain defined parameters. This type of patent does not prevent a competitor from making and marketing a product that is identical or similar to the protected product under parameters that are outside the scope of the patented method claims. Moreover, even if competitors do not actively promote such a product for the indications protected by the method patent, physicians could prescribe the products for these methods on an off-label basis. Although such off-label prescriptions may infringe or contribute to the infringement of method-of-use patents, the practice is common and such infringement is difficult to detect, prevent or prosecute.

In addition, we have entered into a cross-license agreement for certain electroporation technology with Inovio, including our patent protection for our ImmunoPulse® clinical device (some of which, as noted above, has recently expired or will expire in 2018). Under the terms of the agreement, Inovio has granted us a non-exclusive, worldwide license under certain of its electroporation patents, and in exchange, we have granted to Inovio an exclusive license to certain of our technology in a limited field of use. Although we do not currently rely on the intellectual property we have licensed from Inovio, our product candidates could in the future utilize this intellectual property. This license is non-exclusive and Inovio could use the technology to compete with us or could license the technology to others, including our competitors. Additionally, the license we have granted to Inovio could enable it to develop products that compete against ours, directly or indirectly, in the specific field of use subject to the license.

If we are not able to maintain our existing in-licenses or if we are not able to establish new in-licenses for any other third-party rights we need, we could become subject to significant costs or royalty or other fees to establish alternative license arrangements, if such licenses are available when needed, on acceptable terms or at all, or we could be forced to develop modifications to the affected product candidates or technologies to avoid reliance on the third-party rights, if such modifications are possible. Any inability to secure and maintain adequate rights to any third-party technologies necessary for the development of our product candidates could severely limit our continued research and development activities, our efforts to obtain product approvals and, if such approvals are obtained, our ability to commercialize the approved products, any of which would materially adversely impact our business and prospects.

We may become involved in litigation or other proceedings in our efforts to protect our patent and other intellectual property rights, which could require significant time and costs and would be subject to unpredictable outcomes.

We may become aware of activities by third parties, including our competitors, that we believe infringe our issued patents or other intellectual property rights. If we choose to file a lawsuit against a potentially infringing third party to try to enforce our patents or other intellectual property rights, the third party may seek a ruling that the patents are invalid and/or should not be enforced. Such a ruling could severely limit our ability to protect our rights from use by third parties. The U.S. Supreme Court has recently revised certain tests regarding assessing the validity of patents, which could result in the invalidation of issued patents and/or their claims based on the application of the new patent validity standards. As a result, in the event of any patent infringement litigation or other proceedings involving our patents, our patents could be subject to challenge and subsequent invalidation or significant narrowing of claim scope under the revised standards. Moreover, even if the validity of our patents is upheld in a patent infringement lawsuit, a court could refuse to stop a third party's activities on the grounds that the activities do not infringe the specific claims of our patents. Further, even if we were successful in stopping the infringing activity, patent infringement lawsuits are expensive and could consume significant time, management attention, capital and other resources.

These risks of third parties' infringement of our intellectual property rights may increase if we engage in discussions, collaborations or other strategic arrangements with third parties. Also, new challenges could arise if and to the extent we pursue engagements with third parties located outside the United States. These factors could increase the risks and costs associated with building and protecting our intellectual property portfolio and could adversely affect our

performance and our business prospects.

Third parties may claim that we infringe their proprietary rights, which could prevent us from pursuing our clinical and other studies and other research and development activities.

The validity and infringement of patents or proprietary rights of third parties has been the subject of substantial litigation in the biotechnology industry. In the course of our research and development activities, we could become subject to legal claims that we, our activities or our product candidates or technologies infringe the rights of others. This type of patent infringement litigation is costly and time-consuming and diverts the attention of management and technical personnel. In addition, if we or our product candidates or technologies are found to infringe the rights of others, we could lose our ability to continue our development programs or could be forced to pay monetary damages. Although the parties to patent and intellectual property disputes in the biotechnology industry have often settled their disputes by establishing licenses or similar arrangements, the costs associated with these arrangements may be substantial and could include ongoing royalties. Furthermore, any such licenses may not be available when needed, on commercially reasonable terms or at all. These risks may be amplified due to our small size and limited experience and resources relative to many of our competitors. As a result, any claims of infringement against us, adverse determination in a judicial or administrative proceeding or failure to obtain necessary licenses could materially delay, hinder or restrict our development efforts or prevent us from continuing to pursue our operational and strategic plans, which could have a material adverse effect on our business, prospects and results of operations.

The biotechnology industry is highly competitive, and many of our competitors are significantly larger and more experienced than we are.

The biotechnology industry is intensely competitive. This competitive environment stimulates an ongoing and extensive search for technological innovation and necessitates effective and targeted marketing strategies to communicate the effectiveness, safety and value of products to healthcare professionals in private practice and group practices and payors in managed care organizations, group purchasing organizations, and Medicare and 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 compete against all other developers of cancer treatments, including other immunotherapy treatments as well as other types of treatments for the cancer indications on which we are focused. In particular, a number of companies, some of which are large, well-established pharmaceutical companies, have recently announced development strategies similar to our current focus on our PISCES study, namely the combination of IL-12 and a checkpoint inhibitor to improve response rates in patients who are refractory or who have relapsed on anti-PD-1 therapies either alone or in combination with other therapies, and we view these companies as our most relevant current competitors. These companies include, among others, Bristol Myers-Squibb, Iovance Therapeutics, Syndax, Dynavax Technologies and Idera Pharmaceuticals. In addition, we also compete with other early-stage biotechnology companies for funding and support from healthcare and other investors and potential collaboration relationships with larger pharmaceutical or other companies, as well as for personnel with expertise in our industry. We are smaller, less experienced and less well-funded than many of our competitors, and we have a shorter and less proven operating history and a less recognizable and established brand name than many of our competitors. In addition, some of our competitors have commercially available products, which provide them with operating revenue and other competitive advantages. Furthermore, recent trends in the biotechnology industry are for large drug companies to acquire smaller outfits and consolidate into a smaller number of very large entities, which further concentrates financial, technical, and market strength and increases competitive pressure in the industry.

Our competitors may obtain regulatory approval of their product candidates more rapidly than we can or may obtain more robust patent protection or other intellectual property rights to protect their product candidates and technologies, which could limit or prevent us from developing or commercializing our product candidates. If we are able to obtain regulatory approval of one or more of our product candidates, we will face competition from approved products or products under development by larger companies that may address our targeted indications. If we directly compete with these very large entities for the same markets and/or customers, their greater resources, brand recognition, sales and marketing experience and financial strength could prevent us from capturing a share of these markets or customers. 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, less costly or more widely accepted for other reasons than any of our products that obtain regulatory approvals, and our competitors may also be more successful than us in manufacturing, distributing and otherwise marketing their products.

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, coverage and reimbursement by third-party payors, extent of adverse side effects and convenience of treatment procedures. We may not be able to effectively compete in any of these areas. Presently, we compete with other biotechnology companies for funding and support on the basis of our technology platforms and the potential value of our product candidates based on the factors described above.

If we are unable to compete effectively, our business, results of operations, financial condition, and prospects may be materially adversely affected.

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 regarding appropriate product promotion and continuing medical and health education activities. Even though we do not have any FDA approved products, these guidelines apply to our current activities with respect to disclosures, presentations or other communications about our product candidates and technologies at healthcare conferences or in other forums. Although we endeavor to follow these guidelines, the FDA or the Office of the Inspector General of the U.S. Department of Health and Human Services could disagree, in which case we could 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, any of which could materially harm our business and prospects.

If we and our contract manufacturers fail to produce our systems and product candidates in the volumes and within the timelines we require, or if they fail to comply with applicable regulations, we could face delays in the development and commercialization of our equipment and product candidates.

Currently, we assemble certain components of our electroporation system, which is our proprietary delivery mechanism for our ImmunoPulse IL-12® product candidate, and we utilize the services of contract manufacturers to manufacture the remaining components of these systems and for the manufacture, testing and storage of all of our supply of our plasmid product candidate for clinical trials or other studies. We do not own and have no plans to build our own clinical or commercial manufacturing capabilities, and we expect to increase our reliance on third-party manufacturers if and when we commercialize any of our product candidates and systems.

The manufacture of our systems and product supplies requires significant expertise and capital investment, including the use of advanced manufacturing techniques and process controls. Manufacturers often encounter difficulties in production, particularly in scaling up for commercial production if regulatory approvals are obtained. These difficulties include, among others: problems with production costs and yields; quality control issues, including stability of the equipment and product candidates and quality assurance testing; shortages of qualified personnel; and compliance with strictly enforced federal, state and foreign regulations. If we or our manufacturers were to encounter any of these difficulties or our manufacturers otherwise fail to comply with their contractual obligations to us, our ability to provide our electroporation equipment to our partners and product candidates to patients enrolled in our clinical trials, or to commercially launch a product if regulatory approvals are obtained, would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of our clinical trials, increase the costs associated with maintaining our clinical trial programs, and, depending upon the period of delay, require us to commence new trials at significant additional expense or terminate the trials completely.

In addition, all manufacturers of our products must comply with current good manufacturing practices, which are enforced by the FDA through its facilities inspection programs. These practices include requirements regarding,

among other things, quality control, quality assurance and the generation and maintenance of records and documentation. We have little or no control over our manufacturers' compliance with these regulations and standards. Any failure by our manufacturers to comply with these requirements could result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall or withdrawal of product approval. Additionally, if the safety of any product candidate or approved product is compromised due to our or our manufacturers' failure to adhere to applicable regulatory requirements or for other reasons, we may not be able to obtain or maintain regulatory approval for or successfully commercialize the products, and we may be held liable for any injuries sustained as a result of the failure. Any of these factors could cause delays in clinical trials, regulatory submissions or approvals, entail significant costs or hinder our ability to effectively commercialize our product candidates. Furthermore, assuming we are successful in commercializing one or more of our product candidates, if our manufacturers fail to deliver the required commercial quantities on a timely basis, pursuant to provided specifications and at commercially reasonable prices, we may be unable to meet demand for our products and we could lose potential revenue.

Our business and operations could suffer in the event of cyber-attacks or 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 material disruptions to our commercialization activities, clinical and other development programs, financial and disclosure controls and other reporting functions and the administrative aspects of our business, in addition to possibly requiring substantial expenditures of capital and other resources to remedy. Further, any loss of clinical trial data from completed or future clinical trials as a result of such a disruption could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the lost data. Moreover, to the extent any such disruption results in the loss of or damage to our data or applications or inappropriate disclosure of confidential or proprietary information, we could incur significant liabilities. The occurrence of any of these circumstances could cause our operations and our performance to suffer.

We may be unable to acquire or develop new product candidates or technologies, or we may never be able to commercialize any product candidates or technologies we do successfully acquire or develop.

As part of our business strategy, we plan to expand our clinical pipeline and build our portfolio of product candidates through the development, acquisition or licensing of assets or businesses, product candidates or approved products. The process of identifying, planning, negotiating, implementing and integrating an acquisition or license of a new business, product candidate or approved product can be lengthy and complex and can involve numerous difficulties, including difficulties related to:

- identifying new potential product candidates or promising technologies;
- competing with other companies for the acquisition or license, including many of our competitors with substantially greater financial, marketing and sales resources;
- negotiating the terms of the acquisition or license, at which we have relatively little experience;
- accurately judging the value or worth of a potential acquisition or in-license candidate;
- paying for an acquisition or license, including the consideration to acquire or license a business, technology or asset (which could include cash and/or issuance of equity or debt securities);
- acquisition and integration efforts could disrupt our business and divert the time and attention of management and other internal personnel from existing operations;
- any integration failures could result in the loss or impairment of relationships with employees, consultants, suppliers and other vendors and partners;

- exposure to unknown or contingent liabilities based on an acquired company's operations or assets;

- acquisition and integration efforts and costs could reduce available liquidity and other resources to pursue other acquisitions or strategic transactions;

- challenges establishing appropriate controls and procedures for any acquisition by us of a private company;

- failing to recoup our investment of time, capital and other resources into a proposed acquisition or license, as a result of failing to complete the transaction or, for transactions that are completed, failing to realize the anticipated benefits of acquired or licensed business or asset;

- challenges developing and commercializing any product candidates or technologies that we are successful in acquiring or licensing, which is subject to all of the risks described throughout these risk factors regarding the development of our current product candidates.

As a result of these and other difficulties, any efforts to acquire or develop new product candidates, technologies or businesses may not produce commercially successful products or otherwise result in meaningful revenue or profitability for our business. As a result, the pursuit of these activities could have a material adverse effect on our business, results of operations, financial condition and prospects.

Any collaboration arrangements we may establish may not be successful, which could adversely affect our ability to develop and commercialize our product candidates.

We may seek collaboration arrangements with pharmaceutical or biotechnology companies for the development or commercialization of our current and any future product candidates. To the extent we pursue collaboration arrangements, we would face significant risks in connection with establishing and maintaining the arrangements, including, among others:

- we could be subject to intense competition in seeking appropriate collaborators;
- collaboration arrangements are complex, costly and time-consuming to negotiate, document and implement, and they could require our payment to the collaborator of cash or other consideration, including issuances of equity or debt securities, in order to establish the relationship;
- we may be unsuccessful in establishing and implementing any collaboration we desire to pursue, or the terms of the arrangement may not be favorable to us;
- collaborations often would require that we relinquish some or all of the control over the future success of the product candidate to the third-party collaborator;
- the success of any collaboration arrangements we may establish would depend heavily on the efforts and activities of our collaborators, who would likely have significant discretion in determining the efforts and resources they would apply to these collaborations;
- disagreements between collaborators regarding clinical development and commercialization matters can be difficult to resolve and can lead to delays in the development process or commercialization of the applicable product candidate and, in some cases, termination of the arrangement; and
- any termination of a collaboration arrangement that we are able to establish could adversely affect our performance, particularly to the extent we become reliant upon the collaboration for revenue or important commercialization processes or efforts.

In addition, collaboration arrangements may also include our pursuit of combination trials to develop and commercialize our product candidates as combination products, such as our PISCES study with Merck's KEYTRUDA®. To the extent we continue to pursue this or any other similar collaborative arrangement, we will face certain additional risks and uncertainties in development, as drug/device combination products are particularly complex, expensive and time-consuming to develop due to the number of variables involved in the final product design, including ease of patient and doctor use, maintenance of clinical efficacy, reliability and cost of manufacturing, regulatory approval requirements and standards and other important factors. Additionally, combination products face continued risk and uncertainty post-development in connection with manufacturing and supply until a commercial supply chain is validated and proven.

The occurrence of any of these risks with respect to any collaboration arrangements we pursue or establish could materially adversely affect our performance, financial condition and reputation.

We may not be successful in executing our sales and marketing strategy for the commercialization of any of our product candidates, in which case we may not be able to generate significant, or any, revenue.

Our commercialization strategy may include the establishment of our own sales, marketing and distribution capabilities to market products to our target markets. Developing these capabilities would require significant expenditures on personnel and infrastructure. Moreover, we have no experience with these activities. While we currently expect that any approved products would be marketed to a relatively small patient population, we might not be able to create an effective sales force to address even a niche market. In addition, some of our product candidates could require, if approved, a large sales force to call on, educate and support physicians and patients. We could decide in the future to pursue collaborations with one or more pharmaceutical companies to sell, market and distribute any approved products, but we may not be able to establish any such arrangement when desired, on acceptable terms or at all. Further, any such collaboration we do establish may not be effective in generating meaningful revenue to us.

We may be unsuccessful in implementing the commercialization strategies we have planned. Further, we have not proven our ability to succeed in the biotechnology industry and are not certain that our commercialization strategies, even if implemented as we envision, would lead to significant revenue. If we are unable to successfully implement our commercialization plans and drive adoption by patients and physicians of any product candidates that obtain regulatory approval, then we will not generate meaningful, or any, revenue, which would have a material adverse effect on our business, results of operations, financial condition and prospects.

If any product candidate that receives regulatory approval does not achieve broad market acceptance, our revenue potential may be limited.

The commercial success of any product candidate that obtains marketing approval from the FDA or comparable foreign regulatory authorities will depend on the acceptance of these products by physicians, patients, third-party payors and the medical community. The degree of market acceptance of any product candidate that receives 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 or other regulator-approved labeling;
- the clinical indications for which the product is approved;
- the availability and perceived advantages of alternative treatments;
- any negative publicity related to the product or any competing product;
- the effectiveness of our or any current or future collaborators' sales, marketing and distribution strategies;
- pricing and cost effectiveness;
- our ability to obtain adequate third-party payor coverage or reimbursement; and
- the willingness of patients to pay out-of-pocket in the absence of adequate third-party payor coverage and reimbursement.

Failures with respect to any one of these factors could severely limit the commercial potential of any product candidate that obtains regulatory approval, which could materially adversely affect our performance and prospects.

We may not be able to establish adequate coverage and reimbursement by third-party payors for any product candidate that achieves regulatory approvals, which could severely limit our market potential, performance and prospects.

Cost containment has become a significant trend in the U.S. healthcare industry. Third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for certain products and procedures. Increasingly, third-party payors are requiring that companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products and treatments. In addition, recent trends in U.S. politics suggest that the U.S. healthcare insurance framework may experience significant changes in the near term. For all of these and other reasons, coverage and reimbursement at adequate or any levels may not be available for any product candidate that achieves regulatory approval. If coverage and reimbursement is not available or is not available at an adequate level for any approved product, the demand for or price of the product could be materially negatively affected, which could severely limit our revenue potential and prospects.

In addition, the regulations that govern marketing approvals, pricing, coverage and reimbursement for new therapeutic products vary widely from country to country. Some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing government control even after initial approval is granted. As a result, even if we obtain regulatory approval for a product candidate in a particular country, we could be subject to continuing pricing regulations that could delay our commercial launch of the product or negatively impact the revenue potential for the product in that country.

Future growth, including growth in international operations, could strain our resources, and if we are unable to manage any growth we may experience, we may not be able to successfully implement our business plans.

In late 2016, we established a subsidiary corporation in Australia in preparation for planned clinical trials in that country. In addition, our business plan includes continued growth of our operations, including, among other things, growth in our workforce, expansion of our clinical trial efforts within and outside of the United States, and expansion of our portfolio of product candidates. This growth could place an additional strain on our management, administrative, operational and financial infrastructure, and will require that we incur significant additional costs and hire and train additional personnel to support our expanding operations. Further, we must maintain and continue to improve our operational, financial and management controls and reporting systems and procedures, which can be more challenging during periods of expansion. As a result, our future success will depend in part on the ability of management to effectively manage any of this growth we may experience. If we fail to successfully manage any growth we may experience, we may be unable to execute on our business plan.

In connection with any geographic expansion we may pursue, international operations would involve substantial additional risks, including, among others:

- difficulties complying with the U.S. Foreign Corrupt Practices Act and other applicable anti-bribery laws;
- difficulties maintaining compliance with the varied laws and regulations of multiple jurisdictions that may be applicable to our business, many of which may be unfamiliar to us;
- more complexity in our regulatory and accounting compliance;
- differing or changing obligations regarding taxes, duties or other fees;
- limited intellectual property protection in some jurisdictions;
- risks associated with currency exchange and convertibility, including vulnerability to appreciation and depreciation of foreign currencies against the U.S. dollar;

uncertainty related to developing legal and regulatory systems and standards for economic and business activities in some jurisdictions;

trade restrictions or barriers, including tariffs or other charges and import-export regulations, which are subject to increased uncertainty following the results of the 2016 U.S. presidential election and the trade policies of the current administration regarding existing and proposed trade agreements and the ability to import goods into the United States;

changes in applicable laws or policies;

the impact of and response to natural disasters; and

potential for war, civil or political unrest and economic and financial instability.

The occurrence of any of these risks could limit our ability to pursue international expansion, increase our costs or expose us to fines or other legal sanctions, any of which could negatively impact our business, reputation and financial condition.

If we are unable to successfully recruit and retain qualified personnel, we may not be able to maintain or grow our business.

In order to successfully implement and manage our business plans, we depend on, among other things, successfully recruiting and retaining qualified executives, managers, scientists and other employees with relevant experience in life sciences and the biotechnology industry. Competition for qualified individuals is intense, particularly in our industry, due to the many larger and more established life science and biotechnology companies that compete with us for talent. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we heavily rely on consultants and advisors, including scientific, clinical and regulatory advisors, to assist us in formulating our research and development and commercialization strategies. Our consultants and advisors may be employed by others or may have commitments under consulting or advisory contracts with other entities that may limit their availability to support us. If we are not able to retain existing personnel, consultants and/or advisors, and find, attract and retain new qualified personnel, consultants and/or advisors on acceptable terms and in a timely manner to coincide with our needs, we may not be able to successfully maintain or grow our operations and our business and prospects could suffer.

Additionally, although we have employment agreements with each of our executive officers, these agreements are terminable by them at will. The loss of the services of any one or more members of our current senior management team could, among other things, disrupt or divert our focus from pursuing our business plans while we seek to recruit other executives, impact the perceptions of our existing and prospective employees, partners and investors regarding our business and prospects, cause us to incur substantial costs in connection with managing transitions and recruiting suitable replacements and, if the departing personnel are crucial to any of our clinical or other development programs, delay or prevent the development and commercialization of the affected product candidates. These risks would be amplified if we are not able to recruit suitable replacements for any departing personnel on acceptable terms and in a timely manner. The occurrence of any of these or other potential consequences could cause significant harm to our business.

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

Biotechnology companies are subject to extensive, complex, costly and evolving government regulation relating to the ability to market and sell any therapeutic or medical device. In the United States, these regulations are principally administered and enforced by the FDA and, to a lesser extent, by the DEA and comparable state government agencies,

and outside the United States, these regulations are typically administered by various regulatory agencies comparable to the FDA in foreign countries where products or product candidates are researched, tested, manufactured and/or marketed.

The U.S. federal Food, Drug and Cosmetic Act, Controlled Substances Act and other federal statutes and regulations, as well as similar state and foreign statutes and regulations, govern or influence, among other things, the research, development, testing, manufacture, storage, record-keeping, approval, labeling, promotion, marketing, distribution, post-approval monitoring and reporting, sampling, import and export of product candidates such as ours. Under these regulations, we and our contract manufacturers may become subject to periodic inspection of our facilities, quality control and other procedures, and operations and/or the testing of our product candidates by the FDA, DEA and other authorities during and after the approval process for a product candidate, to confirm compliance with all applicable regulations, including current good manufacturing practices and other applicable requirements. Further, even if regulatory approval of a product candidate is obtained, such approval would usually impose limitations on the indicated uses for which the product may be marketed, which limitations could materially limit a product’s market and revenue potential. Additionally, we would be subject to pervasive and continuing regulation by the FDA and/or comparable foreign regulators with respect to any approved product. Moreover, we could be required to conduct potentially costly post-approval studies or surveillance programs to monitor the effect of any approved products, and the FDA and comparable foreign regulators have the authority to stop or limit further marketing of a product or impose more stringent labeling restrictions based on the results of these post-approval tests and programs or in the event of any unexpected or serious health or safety concern regarding any approved product.

Possible penalties or other consequences for failure to comply with these regulatory requirements include, among others, observations, notices, citations and/or warning letters that could force us to modify our clinical programs or other activities; clinical holds on our ongoing clinical programs; adverse publicity from the FDA or others; the FDA's suspension of its review of pending applications; fines; product recalls or seizures; total or partial suspension of production and/or distribution; labeling changes; withdrawal of previously granted product approvals; enforcement actions; injunctions and civil or criminal prosecution. Any such sanctions, if imposed, could have a material adverse effect on our business, operating results and financial condition. Any such sanctions, if imposed, could have a material adverse effect on our business, operating results and financial condition.

Moreover, the regulations, policies and guidance of the FDA or other regulatory agencies could change and new or additional statutes or regulations could be enacted. If changes or new laws are more stringent or impose additional or more challenging requirements, our costs of compliance could increase, regulatory approval of our product candidates could be delayed or jeopardized, or post-approval activities for any product candidates that obtain regulatory approval could be further restricted or regulated. If we are not able to achieve and maintain regulatory compliance, we may not be permitted to market any of our product candidates, which would materially adversely affect our prospects to generate revenue.

If we fail to comply with applicable healthcare laws and regulations, we could face substantial penalties and our business, operations, prospects and financial condition could be adversely affected.

The healthcare industry is heavily regulated, constantly evolving and subject to significant change and fluctuation. The U.S. federal and state healthcare laws and regulations that impact our business include, among others:

- the laws and regulations administered and enforced by the FDA, including the FDCA, Controlled Substances Act and other federal statutes and regulations, discussed above;
- the federal Anti-Kickback Statute, which generally prohibits, among other things, soliciting, receiving or providing remuneration to induce the referral of an individual for an item or service or the purchasing or ordering of an item or service for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs;
- the federal false claims laws, which generally prohibit, among other things, knowingly presenting or causing to be presented claims for payment from Medicare, Medicaid or other third-party payors that are false or fraudulent;
- the Affordable Care Act, which, in general and among other things, expands the government's investigative and enforcement authority, including requiring pharmaceutical companies to record and disclose to government agencies any transfers of value to doctors and teaching hospitals, and increases the penalties for fraud and abuse, including amendments to the federal False Claims Act and the Anti-Kickback Statute to make it easier to file lawsuits under these statutes;

HIPAA and HITECH, which, in general and among other things, establish comprehensive federal standards with respect to the privacy, security and transmission of individually identifiable health information and impose requirements for the use of standardized electronic transactions with respect to transmission of such information;

the FCPA and other applicable anti-bribery laws; and

state law equivalents of each of these federal laws, such as anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not be preempted by applicable federal laws, thus complicating compliance efforts.

Additionally, the healthcare compliance environment is continuously changing, with proposed revisions to or replacement of the Affordable Care Act at the federal level and with some states mandating implementation of compliance programs, compliance with industry ethics codes, spending limits and reporting to state governments of gifts, compensation and other remuneration to physicians. This shifting regulatory environment, as well as our obligation to comply with different reporting and other compliance requirements, in multiple jurisdictions, including foreign laws and regulations comparable to the U.S. laws and regulations described above, to the extent we continue to pursue operations in foreign countries, such as our clinical activities in Australia, or if we seek to sell any product that obtains regulatory approval in a foreign country, increases the possibility that we may violate one or more of these laws. In addition, these conditions may also adversely affect our ability to obtain regulatory approval for any of our product candidates, the availability of capital, our ability to generate meaningful or any revenue and, if any of our product candidates achieve regulatory approval, our ability to establish a price we believe is fair for the approved product. Further, 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, if any of our product candidates obtain regulatory approval and become commercially available.

All of these laws impose penalties for non-compliance, some of which may be severe. 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 fines or other monetary damages or orders forcing us to curtail or restructure our operations. Any such penalties could adversely affect our ability to operate our business and pursue our strategic plans. Additionally, 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 management's attention from the operation of our business. Moreover, achieving and sustaining compliance with the various U.S. federal and state and foreign laws and regulations that apply to our business could prove costly. The occurrence of any of these risks could cause our performance and financial condition to materially suffer.

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

The clinical use of our product candidates and, if any of our product candidates achieves regulatory approval, any future commercial use of the approved products, exposes us to the risk of product liability claims. Any side effects, manufacturing defects, misuse, or abuse associated with our product candidates or any approved products could result in injury to a patient or even death. In addition, a liability claim could be brought against us even if our product candidates or any approved products merely appear to have caused an injury. These product liability claims could be brought against us by consumers, healthcare providers, pharmaceutical companies or others that come into contact with our product candidates or any approved products.

Regardless of merit or potential outcome, product liability claims against us could result in, among other effects, the inability to continue clinical testing of our product candidates or, for any approved products, commercialization of the products, impairment of our business reputation, withdrawal of clinical trial participants and distraction of

management's attention from our primary business activities. In addition, if we cannot successfully defend against product liability claims, we could incur substantial liabilities, including liabilities that may be beyond the scope or limits of any applicable insurance policies we may have in place. Any of these outcomes could severely harm our business, financial condition and prospects.

Our business depends in large part on our ability to protect our proprietary rights and technologies, and we may be unsuccessful in these efforts.

We believe our success and ability to compete depends in large part on obtaining and maintaining patent, trademark and trade secret protection of our product candidates and their respective components and underlying technologies, including devices, formulations, manufacturing methods and methods of treatment, as well as successfully defending our intellectual property rights against third-party challenges. Our ability to stop third parties from making, using or selling products that infringe on our intellectual property rights depends on the extent to which we have secured and properly safeguarded these rights under valid and enforceable patents or trade secrets. Although we have previously obtained patent protection for our ImmunoPulse® clinical device, our primary U.S. patent providing such protection expired in September 2017 and our international patent providing such protection will expire in 2018. As a result, we have limited ability to enforce these rights against third parties to prevent them from making or selling competing products that rely upon the protected technology, which could significantly harm our competitive position and prospects. To the extent our existing patents or pending or planned patent applications expire before we are able to commercialize product depending on the technology or do not otherwise provide sufficient protection, we could be subject to substantially increased competition and our business and ability to commercialize or license our technology or product candidates could be materially adversely affected.

Even if we secure patents that cover our proprietary technology, our efforts to protect our intellectual property rights with patents may prove inadequate. For instance, the breadth of claims in a patent application is often restricted during patent prosecution, resulting in granted claims with a more limited scope than the claims in the original application. Additionally, pending or future patent applications may not result in issued patents. Laws and regulations for the prosecution of patents are continuously evolving, and the U.S. Supreme Court has recently revised certain tests regarding granting patents that could make it more difficult to obtain issued patents. Also, any patents that are granted could be subject to post-grant proceedings that could limit their scope or enforceability, and claims that are amended during post-grant proceedings may not be broad enough to provide meaningful protection. Moreover, any patents that are issued to us or any future collaborators may be circumvented or invalidated by third-party efforts, may expire before or shortly after obtaining necessary regulatory approvals, or may not provide sufficient proprietary protection or competitive advantage for other reasons. Further, 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. These risks may be amplified in some foreign jurisdictions, where patent protection may not be as strong or as effective as it is in the United States.

Our reliance on unpatented proprietary rights, including trade secrets and know-how, may also pose significant risks. For instance, it can be difficult to protect these rights and they may lose their value if they are independently developed by a third party or if their secrecy is lost. Although we have taken measures to protect these rights, including establishing confidentiality agreements with employees, consultants and other third parties, these measures may not sufficiently safeguard our unpatented proprietary rights and may not provide adequate remedies in the event of unauthorized use or disclosure of the confidential information. For instance, enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming and the outcome would be unpredictable.

If we are unable to secure patent protection for our patentable technologies, if any of our issued patents are limited or found to be invalid or unenforceable, or if we are otherwise unable to adequately protect our patented or unpatented proprietary rights, our business and prospects could be materially negatively affected.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results and stockholders and the investment community could lose confidence in our financial reporting, which could harm our business.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Although management has determined that our internal control over financial reporting was effective as of July 31, 2017, our controls over financial processes and reporting may not continue to be effective, or we may identify significant deficiencies or material weaknesses in our internal controls in the future. Any failure to maintain effective internal control over financial reporting, including failures to implement new or improved controls as needed in a timely and effective manner or remediate any significant deficiency or material weakness that is identified in the

future, could cause noncompliance with our public reporting obligations, an inability to produce reliable financial reports or material misstatements in our financial statements or other public disclosures. If any of these circumstances were to occur, investors could lose confidence in our financial and other reported information, our reputation could otherwise be harmed, the investment of our stockholders in our company could be negatively affected and the costs to us of raising additional capital could materially increase, any of which could harm our business and prospects.

Maintaining compliance with our reporting and other obligations as a public company could strain our resources and distract management.

As a public company, we experience significant demands that are not applicable to private companies. For example, the Sarbanes-Oxley Act of 2002 and related and other rules implemented by the SEC and the NASDAQ Stock Market LLC, which maintains the securities exchange on which our common stock is listed for trading, impose a number of requirements on public companies, including with respect to corporate governance practices, periodic reporting and other disclosure requirements and financial and disclosure controls and procedures. Further, the SEC and other regulators have continued to adopt new rules and make changes to existing regulations that require our compliance, such as the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the corporate governance and executive compensation-related disclosure requirements of this legislation.

Maintaining compliance with the rules and regulations applicable to public companies involves significant legal, accounting and financial costs. Additionally, if we grow as anticipated, we may need to hire additional personnel and implement new and more sophisticated financial and accounting systems and procedures to continue to meet our public company obligations. Our management and other personnel devote substantial attention to maintaining our compliance with these obligations, which diverts attention from other aspects of our business. Any failure to comply with these public company requirements could have a material adverse effect on our business and prospects and could materially harm our stockholders' investment in our Company.

We may not be able to realize value from, or otherwise preserve and utilize, our net operating loss carryforwards and certain other tax attributes.

If a corporation undergoes an "ownership change" within the meaning of Section 382 of the Internal Revenue Code of 1986, as amended, the corporation's net operating loss carryforwards and certain other tax attributes arising prior to the ownership change are subject to limitations on use after the ownership change. In general, an ownership change occurs if there is a cumulative change in the corporation's equity ownership by certain stockholders that exceeds 50% over a rolling three-year period. Similar rules may apply under state tax laws. If we experience such an ownership change, our net operating loss carryforwards generated prior to the ownership change would be subject to annual limitations that could reduce, eliminate or defer the utilization of these losses.

Moreover, the recognition and measurement of net operating loss carryforwards may include estimates and judgments by management, and the Internal Revenue Service could, upon audit or other investigation, disagree with the amount of net operating loss carryforwards or the determination of whether an ownership change has occurred. Additionally, future legislative changes could negatively impact the ability to use any tax benefits associated with net operating loss carryforwards. Any inability to use net operating loss carryforwards to reduce our U.S. federal or state income tax liability could materially harm our financial condition and results of operations.

Risks Related to Our Common Stock

The price and trading volume of our common stock may be subject to extreme volatility, and stockholders could lose all or part of their investment in our company.

The trading volume and market price of our common stock has experienced, and is likely to continue to experience, significant volatility. This volatility could negatively impact our ability to raise additional capital or utilize equity as consideration in any acquisition transactions we may seek to pursue, and could make it more difficult for existing stockholders to sell their shares of our common stock at a price they consider acceptable or at all. This volatility is caused by a variety of factors, including, among the other risks described in these risk factors:

- adverse research and development or clinical trial results;
- our liquidity and ability to obtain additional capital, including the market's reaction to any capital-raising transaction we may pursue;
- declining working capital to fund operations, or other signs of financial uncertainty;

any negative announcement by the FDA or comparable regulatory bodies outside the United States, including that it has denied any request to approve any of our product candidates for commercialization;

conducting open-ended clinical trials, which could lead to results (either positive or negative) being available to the public prior to a formal announcement;

market assessments of any strategic transaction or collaboration arrangement we may pursue;

potential negative market reaction to the terms or volume of any issuance of shares of our common stock or other securities to new investors pursuant to strategic or capital-raising transactions or to employees, directors or other service providers;

sales of substantial amounts of our common stock, or the perception that substantial amounts of our common stock may be sold, by stockholders in the public market;

issuance of new or updated research or reports by securities analysts or changed recommendations for our common stock;

significant advances made by competitors that adversely affect our competitive position;

the loss of key personnel and the inability to attract and retain additional highly-skilled personnel; and

general market and economic conditions, including factors not directly related to our operating performance or the operating performance of our competitors, such as increased uncertainty in the U.S. healthcare regulatory environment following the results of the 2016 U.S. presidential election.

In addition, the stock market in general, and the market for stock of companies in the life sciences and biotechnology industries in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of specific companies. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against the company. This type of litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

If our common stock is delisted from the NASDAQ Capital Market or we are found to be noncompliant with NASDAQ rules, the market price and liquidity of our common stock could be materially negatively impacted.

The listing of our common stock on the NASDAQ Capital Market, or NASDAQ, is contingent upon our compliance with all of NASDAQ's continued listing requirements. If we are found to be noncompliant with these requirements, our common stock could be subject to delisting from NASDAQ. In such event, the market price of our common stock could be negatively impacted, the liquidity of our common stock could be reduced and our ability to complete equity financings in the future may be limited or prevented.

If we issue additional equity securities in the future, our existing stockholders would be diluted.

Our articles of incorporation authorize the issuance of up to 160,000,000 shares of our common stock. In addition to capital-raising activities, on which we have historically relied for cash to fund our operations, including with our recent October 2017 equity financings, other possible business and financial uses for our authorized common stock include, among others, stock splits, acquiring other businesses or assets in exchange for shares of our common stock, issuing shares of our common stock to collaborators in connection with strategic alliances, attracting and retaining employees with equity compensation or other transactions and corporate purposes that our Board of Directors deems to be in the best interest of our Company. Additionally, issuances of common stock could be used for anti-takeover purposes or to delay or prevent changes in control or management of our Company. Any future issuances of our common stock may be consummated on terms that are not favorable, may not enhance stockholder value and may adversely affect the trading price of our common stock. Further, any such issuance will reduce the book value per share of our common stock and reduce the proportionate ownership and voting power of our existing stockholders.

If outstanding options or warrants to purchase shares of our common stock are exercised or outstanding restricted stock units vest and settle, our existing stockholders would be diluted.

As of July 31, 2017, we had outstanding (i) options to purchase 3.6 million shares of our common stock, (ii) warrants to purchase 9.0 million shares of our common stock, including warrants to purchase 0.9 million shares of common stock at an exercise price of $0.01 per share, and (iii) 1.1 million restricted stock units. In addition, as of July 31, 2017, there were 1.0 million shares reserved for future issuance under our stock incentive and stock purchase plans. The exercise of options and warrants, the vesting and settlement of restricted stock units or the issuance of additional equity awards under our stock incentive and stock purchase plans could have an adverse effect on the market for our common stock, including the price that any stockholder could obtain for its shares. Further, our existing stockholders could experience significant dilution in the net tangible book value of their investment upon the issuance of additional shares of our common stock through the exercise of derivative securities that are currently outstanding or that we may issue in the future.

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

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. Since March 2011, we have completed a number of offerings of our common stock and warrants. Future sales of common stock by significant stockholders, including by those who acquired their shares in our prior equity offerings, or the perception that such sales may occur, could depress the price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

On December 31, 2014, we entered into a lease agreement for approximately 34,000 rentable square feet located at 5820 Nancy Ridge Drive, San Diego, California, which serves as our corporate headquarters and research and development laboratory. The term of the lease commenced on October 19, 2015 and expires on October 19, 2025. Base rent under the lease agreement is approximately $90,000 per month, although we received a 12-month rent abatement for our first year of occupancy and increases by 3% annually. The lease agreement also requires us to share in certain monthly operating expenses of the premises, and required us to pay a security deposit of approximately $90,000 in December 2014 upon entering into the lease agreement.

We have also entered into lease arrangements for office space in San Jose, California to support our legal department and for vivarium space to support our research and development department.

We believe our current facilities are adequate to meet our current operating needs and will remain adequate for the foreseeable future. Should we need additional space, we currently do not foresee significant difficulties in obtaining additional facilities.

ITEM 3. LEGAL PROCEEDINGS

In the ordinary course of business, we may become a party to lawsuits involving various matters. The impact and outcome of litigation, if any, is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. We are not currently a party, and our properties are not currently subject, to any legal proceedings that, in the opinion of management, are expected to have a material adverse effect on our business, financial condition or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Trading Information

Our common stock began trading on The NASDAQ Stock Market LLC's NASDAQ Capital Market tier under the symbol "ONCS" since May 29, 2015. Prior to that, our common stock was quoted on the OTC Market Group, Inc.'s OTCQB tier.

The following table sets forth the range of reported high and low sales prices for our common stock for the fiscal quarters indicated, as reported on the NASDAQ:

	High	Low
Fiscal Year Ended July 31, 2016		
First Quarter ended October 31, 2015	$6.94	$3.37
Second Quarter ended January 31, 2016	$4.42	$1.36
Third Quarter ended April 30, 2016	$3.49	$1.43
Fourth Quarter ended July 31, 2016	$2.05	$1.43
Fiscal Year Ended July 31, 2017		
First Quarter ended October 31, 2016	$2.08	$1.65
Second Quarter ended January 31, 2017	$2.04	$1.11
Third Quarter ended April 30, 2017	$1.69	$1.03
Fourth Quarter ended July 31, 2017	$1.36	$0.88

Holders

As of October 10, 2017, there were 39 holders of record of our common stock, plus an indeterminate number of additional stockholders whose shares of our common stock are held on their behalf by brokerage firms or other agents.

Dividends

We have never declared or paid any cash dividends or distributions on our capital stock. We currently intend to retain 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

The information included under Item 12 of Part III of this report, “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters,” is hereby incorporated by reference into this Item 5 of Part II of this report.

ITEM 6. SELECTED FINANCIAL DATA

Not applicable.

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

Unless the context indicates otherwise, all references to "OncoSec," "our company," "we," "us" and "our" in this report refer to OncoSec Medical Incorporated and its consolidated subsidiaries. The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes included in this report. In October 2016, we created an Australian corporation as our wholly-owned subsidiary. This corporation's functional currency, the Australian dollar, is also its reporting currency, and its financial statements are translated to U.S. dollars, our reporting currency, prior to consolidation. All intercompany accounts and transactions have been eliminated in consolidation.

This discussion and analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act. Forward-looking statements relate to future events or circumstances or our future performance and are based on our current assumptions, expectations and beliefs about future developments and their potential effect on our business. All statements in this report that are not statements of historical fact could be forward-looking statements. The forward-looking statements in this discussion and analysis include statements about, among other things, the status, progress and results of our clinical programs and our expectations regarding our liquidity and performance, including our expense levels, sources of capital and ability to maintain our operations as a going concern. Forward-looking statements are only predictions and are not guarantees of future performance, and they are subject to known and unknown risks, uncertainties and other factors, including the risks described under "Risk Factors" in Part I, Item IA of this report and similar discussions contained in the other documents we file from time to time with the Securities and Exchange Commission. In light of these risks, uncertainties and other factors, the forward-looking events and circumstances described in this report may not occur and our results, levels of activity, performance or achievements could differ materially from those expressed in or implied by any forward-looking statements we make. As a result, you should not place undue reliance on any of our forward-looking statements. Forward-looking statements speak only as of the date they are made, and unless required to by law, we undertake no obligation to update or revise any forward-looking statement for any reason, including to reflect new information, future developments, actual results or changes in our expectations.

Overview

Our Company

We are a biotechnology company focused on designing, developing and commercializing innovative therapies and proprietary medical approaches to stimulate and guide an anti-tumor immune response for the treatment of cancer. Our core platform technology, ImmunoPulse®, is a drug-device therapeutic modality comprised of a proprietary intratumoral electroporation delivery device. The ImmunoPulse® platform is designed to deliver DNA-encoded drugs

directly into a solid tumor and promote an inflammatory response against cancer. The ImmunoPulse® device can be adapted to treat different tumor types, and consists of an electrical pulse generator, a reusable handle and disposable applicators. Our lead product candidate, ImmunoPulse® IL-12, uses our electroporation device to deliver a DNA-encoded interleukin-12, or IL-12, called tavokinogene telseplasmid, or tavo, with the aim of reversing the immunosuppressive microenvironment in the tumor and engendering a systemic anti-tumor response against untreated tumors in other parts of the body. In February 2017, we received Fast Track designation from the U.S. Food and Drug Administration, or FDA, for ImmunoPulse® IL-12, which could qualify ImmunoPulse® IL-12 for expedited FDA review, a rolling Biologics License Application review and certain other benefits.

Our current focus is to pursue our registration-directed study of ImmunoPulse® IL-12 in combination with an approved therapy for melanoma in patients who have shown resistance to or relapse from certain other cancer therapies. We refer to our registration-directed study as the PISCES study. Most of our present activities are directed toward advancing the PISCES study. To this end, in May 2017, we entered into a clinical trial collaboration and supply agreement with a subsidiary of Merck & Co., Inc., or Merck, in connection with the PISCES study, in which we have agreed to sponsor and fund the study and Merck has agreed to manufacture and supply its anti-PD-1 therapy KEYTRUDA® for use in the study. The PISCES study opened for enrollment in October 2017.

We also intend to continue to pursue other ongoing or potential new trials and studies related to ImmunoPulse® IL-12, all with the goal of obtaining requisite regulatory approvals from the FDA and comparable regulators in certain other jurisdictions to market and sell this product candidate. For instance, we are in collaboration with the University of California, San Francisco, or UCSF, the sponsor of a multi-center Phase II clinical trial evaluating ImmunoPulse® IL-12 in combination with Merck's KEYTRUDA® for the treatment of advanced, metastatic melanoma in patients who are predicted to not respond to anti-PD-1 therapy alone. Merck is manufacturing and supplying its drug KEYTRUDA® to UCSF to support this trial.

In addition, we are pursuing a biomarker-focused pilot study of ImmunoPulse® IL-12 in triple negative breast cancer, which is focused on evaluating the ability of ImmunoPulse® IL-12 to alter the tumor microenvironment and promote a pro-inflammatory response. In January 2017, we amended the clinical protocol for this study to improve the enrollment rate, as it had been slow to enroll, and in September 2017, we enrolled half the patients needed for the study, which is now open for enrollment and is ongoing. Additionally, our Phase II clinical trials of ImmunoPulse® IL-12 as a monotherapy in Merkel Cell carcinoma, melanoma, and head and neck squamous cell carcinoma are now closed for enrollment, and databases are locked and clinical study reports are pending. We are no longer pursuing our Phase II clinical trial of ImmunoPulse® IL-12 as a monotherapy in cutaneous T-cell lymphoma, which has been closed.

In addition, we are developing our next-generation electroporation devices, including advancements toward prototypes, pursuing discovery research to identify other product candidates that, like IL-12, can be encoded into DNA, delivered intratumorally using electroporation and used to reverse the immunosuppressive mechanisms of a tumor. We aim to expand our ImmunoPulse® pipeline beyond the delivery of plasmid-DNA encoding for cytokines to include other molecules that may be critical to key pathways associated with tumor immune subversion.

Performance Outlook

We expect to use our available working capital in the near term primarily for the advancement of our existing and planned clinical programs, including primarily the initiation of the PISCES study and, to a lesser extent, the continuation of our other clinical trials and studies described above. We anticipate our spending on clinical programs and the development of our next-generation electroporation device for our ImmunoPulse® IL-12 platform will increase in the next 12 months, primarily in support of the PISCES study, while our spending on research and development programs will decrease due to our focus on the PISCES study. We anticipate that general and administrative costs will remain relatively flat in the next 12 months. See "Results of Operations" below for more information.

Liquidity and Going Concern

We recorded a net loss of $21.4 million and $26.9 million for our fiscal years ended July 31, 2017 and 2016, respectively, and from inception through July 31, 2017, we have incurred an aggregate net loss of approximately $94.9 million. We have generated no revenue since our inception and we do not expect to generate revenue from our operations in the near term. Further, based on our current rate of cash consumption and expectations regarding future expenses, we expect our cash on-hand, after taking into account the expected aggregate net proceeds from our October 2017 equity offerings (described further below) will be sufficient to support our operations to the third calendar quarter of 2018, and we do not currently have any commitments for future capital. As a result of these conditions, there is substantial doubt about our ability to continue as a going concern. See “Liquidity and Capital Resources” below for more information.

Results of Operations

The following table and subsequent discussion summarize our results of operations for each of the periods presented:

	July 31, 2017 ($)	July 31, 2016 ($)	Increase/ (Decrease) ($)	Increase/ (Decrease) %
Revenue	—	—	—	—
Operating expenses				
Research and development	11,952,748	14,741,694	(2,788,946)	(19)
General and administrative	9,495,659	12,144,358	(2,648,699)	(22)
Loss from operations	(21,448,407)	(26,886,052)	(5,437,645)	(20)
Income tax provision	1,391	2,462	(1,071)	(44)
Net loss	(21,449,798)	(26,888,514)	(5,438,716)	(20)

Revenue

We have not generated any revenue since our inception, and we do not anticipate generating meaningful, or any, revenue in the near term.

Research and Development Expenses

Our research and development expenses primarily include expenses related to the development of our therapeutic product candidates, including ImmunoPulse® IL-12, the advancement of electroporation technologies and research and development related to identification and discovery of potential new product candidates. These expenses also include certain clinical study costs and quality assurance expenses. These expenses primarily consist of salaries, benefits, stock-based compensation costs, outside design and consulting services, laboratory supplies, contract research organization expenses and clinical study supply costs. We expense all research and development costs in the periods in which they are incurred, except for certain costs of materials to be used in future clinical trials, which are expensed when used in a clinical trial. As of July 31, 2017, $0.2 million of costs related to clinical trial materials for our PISCES study were recorded as a prepaid asset, and we anticipate these costs will be expensed when used in the PISCES study.

During our fiscal year ending July 31, 2017, of our $12.0 million of research and development expenses, we incurred engineering and product development costs of $3.1 million, personnel costs of $2.8 million, clinical study costs of

$2.5 million, facilities costs of $1.3 million, stock-based compensation expense of $1.2 million and general research and development costs of $1.1 million. During our fiscal year ending July 31, 2016, of our $14.7 million of research and development expenses, we incurred, exclusive of personnel costs, engineering costs of $2.8 million, clinical study costs of $3.1 million and research and development expenses (previously referred to as discovery research costs) of $3.8 million.

The $2.8 million decrease in research and development expenses in the fiscal year ended July 31, 2017 as compared to our fiscal year ended July 31, 2016 was primarily the result of a $1.8 million decrease in the costs of our research and development programs caused by our refocusing of resources to our higher priority clinical programs, a $1.0 million decrease in personnel costs due to reduced headcount, and a $0.6 million decrease in clinical trial expenses due to the refocusing of resources from our existing trials to the planned PISCES study, partially offset by a $0.6 million increase in our engineering and product development costs related primarily to the development of our next-generation electroporation device for our ImmunoPulse® IL-12 platform. We expect research and development to continue to account for a significant portion of our total expenses in the future as we continue to develop our pipeline of product candidates and electroporation devices.

General and Administrative

Our general and administrative expenses include expenses related to our executive, accounting and finance, compliance, information technology, legal, facilities, human resource, administrative and corporate communications activities. These expenses consist primarily of salaries, benefits, stock-based compensation costs, independent auditor costs, legal fees, consultant costs, travel and insurance costs, and public company expenses, such as transfer agent fees and listing fees in connection with the listing of our common stock on the NASDAQ Capital Market.

During our fiscal year ended July 31, 2017, of our $9.5 million of general and administrative expenses, we incurred $2.8 million in personnel costs, $2.5 million in stock-based compensation, $1.2 million in investor relations costs, $0.7 million in legal fees and $2.3 million in other general and administrative costs, including, among other things, accounting, information technology, human resources, public company and facilities costs.

The approximately $2.6 million decrease in general and administrative expenses in our fiscal year ended July 31, 2017, as compared to our fiscal year ended July 31, 2016, was primarily the result of a $2.2 million decrease in non-cash stock-based compensation expense caused by an overall lower stock price and our exchange in December 2016 of certain then-outstanding stock options for a lesser number of new stock options with a lower exercise price, a $0.4 million decrease in personnel costs due reduced headcount, a $0.2 million decrease in consulting costs, partially offset by a $0.2 million increase in legal costs.

Income Tax Provision

We recorded an income tax provision of $1,391 in the year ended July 31, 2017, comprised of minimum state taxes, as we have calculated a net tax loss in 2017. At July 31, 2017, we had federal and California income tax net operating loss carryforwards of approximately $77.6 million and $72.5 million, respectively. In addition, we had federal and California research and development tax credit carryforwards of approximately $1.2 million and $1.3 million, respectively. We also have California Hiring Credits of approximately $9,300. The federal net operating loss and research tax credit carryforwards and California net operating loss carryforwards will begin to expire in 2027 unless previously utilized. The California research and development credit carryforwards will carry forward indefinitely until utilized. We also have foreign net operating loss carryforwards in Australia of $0.6 million.

We have not recorded a benefit from our net operating loss or research credit carryforwards because we believe that it is uncertain that we will have sufficient income from future operations to realize the carryforwards prior to their expiration. Accordingly, we have established a 100% valuation allowance against the deferred tax asset arising from the carryforwards.

Liquidity and Capital Resources

Going Concern

Our consolidated financial statements included in this report have been prepared on the going concern basis of accounting, which assumes we will continue to operate as a going concern and which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. We have sustained substantial losses of $21.4 million and $26.9 million for the years ended July 31, 2017 and 2016, respectively, and cumulative losses since inception of $94.9 million. In addition, as of July 31, 2017, we had cash and cash equivalents of approximately $11.4 million and, as of that date, we estimated its cash requirements for the following 12 months to be approximately $21.0 million. Based on our current rate of cash consumption and expectations regarding future expenses, as well as our lack of any revenue-generating activities or firm commitments for future capital, we estimate we will need additional capital by the third calendar quarter of 2018 and our prospects for obtaining that capital are uncertain. We may seek to pursue debt or equity financings or alternative sources of funding to raise additional capital, but no such capital may be available when needed, on acceptable terms or at all. As a result of our historical losses and financial condition, there is substantial doubt about our ability to continue as a going concern.

Working Capital

The following table and subsequent discussion summarize our working capital as of each of the periods presented:

	At July 31, 2017 ($)	At July 31, 2016 **($)**
Current assets	12,513,623	29,417,408
Current liabilities	3,395,974	3,466,251
Working capital	9,117,649	25,951,157

Current Assets

Current assets as of July 31, 2017 decreased to $12.5 million, from $29.4 million as of July 31, 2016. This decrease was primarily due to our use of cash to fund our operations during the fiscal year.

Current Liabilities

Current liabilities as of July 31, 2017 decreased to $3.4 million, from $3.5 million as of July 31, 2016. This decrease was primarily due to a decrease in accrued compensation resulting from reduced personnel costs during the fiscal year.

Cash Flow

Cash Used in Operating Activities

Net cash used in operating activities for our fiscal year ended July 31, 2017 was $17.3 million, as compared to $17.8 million for our fiscal year ended July 31, 2016. We recorded a net loss of $21.4 million and $26.9 million in our fiscal year ended July 31, 2017 and 2016, respectively, which included non-cash charges for stock-based compensation and depreciation expense of $4.4 million and $6.5 million for the respective periods. The $0.5 million decrease in cash used by operating activities between periods was primarily due to a change in working capital due to the timing of

liability payments and the utilization of prepaid assets.

Cash Used in Investing Activities

Net cash used in investing activities for our fiscal year ended July 31, 2017 was $22,000, as compared to $1.6 million for our fiscal year ended July 31, 2016. The $1.5 million decrease in cash used for investing activities between periods was primarily due to our acquisition of property and equipment for our corporate headquarters and laboratory facility that occurred in our fiscal year ended July 31, 2016 and did not recur in our subsequent fiscal year.

Cash Provided by Financing Activities

Net cash provided by financing activities was $64,000 for our fiscal year ended July 31, 2017, as compared to $16.1 million for our fiscal year ended July 31, 2016. The $16.0 million decrease in cash provided by financing activities between periods was primarily due to proceeds we received from our sale of common stock and warrants in two equity offerings in our fiscal year ended July 31, 2016 that did not recur in our subsequent fiscal year (see "—Sources of Capital — May 2016 Offering" and "—Sources of Capital — November 2015 Offering" below).

Uses of Cash and Cash Requirements

Our primary uses of cash have been to finance clinical and research and development activities focused on the identification and discovery new potential product candidates, the development of innovative and proprietary medical approaches for the treatment of cancer, and the design and advancement of pre-clinical and clinical trials and studies related to our pipeline of product candidates. We have also used our capital resources on general and administrative activities, including building and strengthening our corporate infrastructure, programs and procedures to enable compliance with applicable federal, state and local laws and regulations.

Our primary objectives for the next 12 months are to continue the advancement of our PISCES study and, to a lesser extent, our other ongoing clinical trials and studies, and to continue our research and development activities for our next-generation electroporation device and drug discovery efforts. In addition, we expect to pursue capital-raising transactions, which could include equity or debt financings, in the near term to fund our existing and planned operations and acquire and develop additional assets and technology consistent with our business objectives as opportunities arise.

We currently estimate our operating expenses and working capital requirements for the fiscal year ending July 31, 2018 to be approximately $21.0 million, although we may modify or deviate from this estimate and it is likely that our actual operating expenses and working capital requirements will vary from our estimate.

Sources of Capital

We have not generated any revenue since our inception, and we do not anticipate generating meaningful, or any, revenue in the near term. Historically, we have raised the majority of the funding for our business through offerings of our common stock and warrants to purchase our common stock. Although we are exploring other ways of funding our operations that involve less dilution to our existing stockholders, including, among others, technology licensing or other collaboration arrangements, debt financings or grants, we have not successfully established or raised any funds through any of these types of arrangements, and we may need to continue to seek funding for our operations through additional dilutive public or private equity financings. If we issue equity or convertible debt securities to raise additional funds, our existing stockholders would experience further dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we incur debt, our fixed payment obligations, liabilities and leverage relative to our equity capitalization would increase, which could increase the cost of future capital. Further, the terms of any debt securities we issue or borrowings we incur, if available, could impose significant restrictions on our operations, such as limitations on our ability to incur additional debt or issue additional equity or other operating restrictions that could adversely affect our ability to conduct our business, and any such debt could be secured by any or all of our assets pledged as collateral. Additionally, we may incur substantial costs in pursuing future capital, including investment banking, legal and accounting fees, printing and distribution expenses and other costs.

Moreover, equity or debt financings or any other source of capital may not be available to us when needed or at all, or, if available, may not be available on commercially reasonable terms. Weak economic and capital market conditions generally or uncertain conditions in our industry could increase the challenges we face in raising capital for our operations. In recent periods, the capital and financial markets for early and development-stage biotechnology and life science company stocks have been volatile and uncertain. If we cannot raise the funds that we need, we could be forced to delay or scale down some or all of our development activities or cease all operations, and our stockholders could lose all of their investment in our Company.

October 2017 Offerings

On October 25, 2017, we completed our offer and sale to certain accredited investors of, in a registered public offering, 5,270,934 shares of our common stock and, in a concurrent private placement, warrants to purchase an aggregate of up to 3,953,200 shares of our common stock, all at a purchase price of $1.34375 per share. The warrants have an initial exercise price of $1.25 per share, became exercisable on October 25, 2017 and expire on April 25, 2022. The gross proceeds of the offering were $7.1 million and the net proceeds, after deducting the placement agent's fees and other estimated offering expenses paid or payable by us (and excluding the proceeds, if any, from any cash exercise of the warrants), are expected to be $6.2 million. At the closing of the offerings, we also issued warrants to purchase up to an aggregate of 316,256 shares of our common stock to the placement agent for the offerings, which have an exercise price of $1.68, are immediately exercisable and expire on October 21, 2022.

Also, on October 25, 2017, we signed a securities purchase agreement with one institutional accredited investor providing for our offer and sale, in a registered public offering, of 800,000 shares of our common stock and warrants to purchase up to 600,000 shares of our common stock, all at a purchase price of $1.34375 per share and associated warrant. The warrants will have an initial exercise price of $1.25 per share, become exercisable six months after issuance and expire on the 5.5-year anniversary of their issuance date. We expect the closing of this offering to occur on or about October 27, 2017, subject to the satisfaction of certain customary closing conditions. The gross proceeds of the offering are expected to be $1.1 million and the net proceeds, after deducting the placement agent's fees and other estimated offering expenses paid or payable by us (and excluding the proceeds, if any, from any exercise of the warrants), are expected to be $960,000. At the closing of the offering, we will also issue warrants to purchase up to an aggregate of 48,000 shares of our common stock to the placement agent for the offering, which will have an exercise price of $1.68, will be immediately exercisable and will expire on October 25, 2022.

ATM Program

On July 25, 2017, we entered into an equity distribution agreement with Oppenheimer & Co. Inc., or Oppenheimer, to commence an "at the market" offering program, or the ATM Program, under which we were permitted to offer and sell, from time to time through or to Oppenheimer, acting as sales agent or principal, shares of our common stock having an aggregate gross sales price of up to $8.4 million. No shares of our common stock were sold in the ATM Program during the periods covered by this report. Subsequent to such periods, effective as of October 22, 2017, we terminated the ATM Program. As a result of such termination, no further offers or sales of our common stock will be made in the ATM Program. As of the date of such termination, we had sold an aggregate of 897,311 shares of our common stock in the ATM Program, for net proceeds to us, after deducting Oppenheimer's commissions and other expenses paid or payable by us, of $1.1 million.

May 2016 Offering

On May 26, 2016, we completed our offer and sale to a single healthcare-dedicated institutional fund of 665,049 shares of our common stock, Series A Warrants to purchase up to an aggregate of 5,509,642 shares of our common stock at an exercise price of $1.69 per share with a term of nine years and Series B Warrants to purchase up to an aggregate of 4,844,593 shares of our common stock at an exercise price of $0.01 and which expire upon their exercise in full. All warrants issued to the investor were immediately exercisable. The investor paid a purchase price of $1.815 per share of common stock and an accompanying Series A Warrant to purchase one share of common stock and $1.805 per Series B Warrant and accompanying Series A warrant to purchase one share of common stock. The gross proceeds of the offering were $9.9 million and the net proceeds, after deducting the placement agent's fee, financial advisory fees and other offering expenses paid by us, were $9.2 million. At the closing of the offering, we also issued warrants to purchase up to an aggregate of 275,482 shares of our common stock to the placement agents for the offering, which have an exercise price of $2.26875, are immediately exercisable and expire on May 24, 2021.

November 2015 Offering

On November 9, 2015, we completed our offer and sale of an aggregate of 2,142,860 shares of our common stock, together with accompanying warrants to purchase an aggregate of 1,071,430 shares of our common stock, at a purchase price of $3.50 per share. The warrants have an exercise price of $4.50 per share, became exercisable on May 9, 2016 and expire on May 9, 2021. The gross proceeds of the offering were $7.5 million, and the net proceeds, after deducting the placement agent's fee and other offering fees and expenses paid by us, were $6.9 million. In connection with the offering, we paid the placement agent (i) 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, and (ii) warrants to purchase up to an aggregate of 107,143 shares of our common stock. The warrants issued to the placement agent are exercisable at an exercise price of $4.375 per share, have a term of five years, became exercisable on May 9, 2016, and expire on November 9, 2020.

Warrant Exercises

During our fiscal year ended July 31, 2017, we received an immaterial amount of cash related to the exercise of outstanding warrants. If the holders of all of our outstanding Series A Warrants and Series B Warrants issued in our May 2016 offering, described above, were to exercise all such warrants in full on a cash basis, we would receive an aggregate of approximately $9.3 million in net proceeds. If the holders of all of our other outstanding warrants were to exercise all such warrants in full on a cash basis, we would receive an aggregate of approximately $28.5 million in net proceeds. However, the holders of these warrants may choose to exercise only a portion of the warrants they hold, may choose not to exercise any of the warrants they hold, or may choose to "net" exercise their warrants on a cashless basis to the extent permitted by the warrants. As a result, we may never receive meaningful, or any, proceeds from the exercise of these warrants.

Critical Accounting Policies

Accounting for Long-Lived Assets

We assess the impairment of long-lived assets, consisting of property and equipment, periodically and whenever events or circumstances indicate that the carrying value may not be recoverable. Examples of such circumstances may include: (1) the asset's ability to continue to generate income from operations and positive cash flow in future periods; (2) loss of legal ownership or title to an asset; (3) significant changes in our strategic business objectives and utilization of the assets; and (4) the impact of significant negative industry or economic trends. If a change were to occur in any of these or similar factors, the likelihood of a material change in our net loss would increase.

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. Although we believe the factors used by management to evaluate future net cash flows are reasonable, this evaluation requires a high degree of judgment, and results could vary if the actual amounts are materially different than management's estimates. In addition, we base estimates of useful lives and related amortization or depreciation expense on our subjective estimate of the period the assets will generate revenue or otherwise be used by us. If long-lived 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.

Stock-Based Compensation

We grant equity-based awards (typically stock options or restricted stock units) under our stock-based compensation plan and outside of our stock-based compensation plan, with terms generally similar to the terms under our stock-based compensation plan. We estimate the fair value of stock option 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. Stock options granted to non-employees are re-measured at each reporting period until fully vested, with any change in fair value expensed. Changes in assumptions used under the Black-Scholes option valuation model could materially affect our net loss and net loss per share.

We estimate the fair value of restricted stock unit awards based on the closing price of our common stock on the date of grant.

We have issued equity for services or as consideration pursuant to various types of contractual arrangements. Stock-based compensation expense related to such equity issuances is based on the closing price of our stock on the date the liability is incurred, with the stock-based compensation expense adjusted at each reporting period based on our stock price on that date.

Employee Stock Purchase Plan

Employees may elect to participate in our stockholder approved employee stock purchase plan. The stock purchase plan allows for the purchase of our common stock at not less than 85% of the lesser of (i) the fair market value of a share of stock on the beginning date of the offering period or (ii) the fair market value of a share of stock on the purchase date of the offering period, subject to a share and dollar limit as defined in the plan and subject to the applicable legal requirements. There are two 6-month offering periods during each fiscal year, ending on January 31, 2017 and July 31, 2017. In accordance with applicable accounting guidance, the fair value of awards under the stock purchase plan is calculated at the beginning of each offering period. We estimate the fair value of the awards using the Black-Scholes option valuation model. 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 the offering period. This fair value is then amortized at the beginning of the offering period. Stock-based compensation expense is based on awards expected to be purchased at the beginning of the offering period, and therefore is reduced when participants withdraw during the offering period.

Recent Accounting Pronouncements

Information regarding recent accounting pronouncements is contained in Note 2 to our consolidated financial statements included in this report.

Off-Balance Sheet Arrangements

We do not have any 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 expenditure or capital resources that is material to investors.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Not applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is incorporated by reference to our consolidated financial statements and the related notes and the report of our independent registered public accounting firm beginning at page F-1 of this report.

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

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures reflects the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

As required by Rule 13a-15(b) under the Exchange Act, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures as of July 31, 2017. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of July 31, 2017, our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. With the participation of our Chief Executive Officer and Chief Financial Officer, our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of July 31, 2017. In conducting such evaluation, management used the criteria set forth in the report entitled *"Internal Control — Integrated Framework"* published by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) to evaluate the effectiveness of our internal control over financial reporting. Based on this evaluation, management has concluded that our internal control over financial reporting was effective as of July 31, 2017, based on those criteria.

This report does not include an attestation report of our independent registered public accounting firm regarding our internal control over financial reporting, in accordance with applicable SEC rules that permit us to provide only management's report in this report.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting during the quarter ended July 31, 2017, 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

The information required by this Item 10 is hereby incorporated by reference to the definitive proxy statement for our 2017 annual meeting of stockholders to be filed within 120 days after the end of our fiscal year ended July 31, 2017.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 is hereby incorporated by reference to the definitive proxy statement for our 2017 annual meeting of stockholders to be filed within 120 days after the end of our fiscal year ended July 31, 2017.

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

The information required by this Item 12 is hereby incorporated by reference to the definitive proxy statement for our 2017 annual meeting of stockholders to be filed within 120 days after the end of our fiscal year ended July 31, 2017.

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

Director independence and other information required by this Item 13 is hereby incorporated by reference to the definitive proxy statement for our 2017 annual meeting of stockholders to be filed within 120 days after the end of our fiscal year ended July 31, 2017.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item 14 is hereby incorporated by reference to the definitive proxy statement for our 2017 annual meeting of stockholders to be filed within 120 days after the end of our fiscal year ended July 31, 2017.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

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

(a)(2) All financial statement 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 included in this report.

(a)(3) The exhibits listed in the Exhibit Index, which appears immediately following the last page of this report and is incorporated herein by reference, are filed or incorporated by reference as part of this report.

ITEM 16. FORM 10-K SUMMARY

We have elected not to provide summary information.

48

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

By: */s/ Punit S. Dhillon*
Punit S. Dhillon
President and Chief Executive Officer

Date: October 25, 2017

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 S. Dhillon Punit S. Dhillon	President, Chief Executive Officer and Director (*Principal Executive Officer*)	October 25, 2017
/s/ Richard B. Slansky Richard B. Slansky	Chief Financial Officer (*Principal Financial and Accounting Officer*)	October 25, 2017
/s/ James DeMesa Dr. James DeMesa	Director	October 25, 2017
/s/ Avtar Dhillon Dr. Avtar Dhillon	Director	October 25, 2017
/s/ Anthony Maida, III Dr. Anthony Maida, III	Director	October 25, 2017
/s/ Daniel J. O'Connor Daniel J. O'Connor, JD	Director	October 25, 2017
/s/ Annalisa Jenkins Dr. Annalisa Jenkins	Director	October 25, 2017

49

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

OncoSec Medical Incorporated

We have audited the accompanying consolidated balance sheet and balance sheet of OncoSec Medical Incorporated (the “Company”) as of July 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flow for the year ended July 31, 2017, and the related statements of operations, comprehensive loss, stockholders’ equity, and cash flows for the year ended July 31, 2016, and the related notes to the financial statements. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these 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 audit to obtain reasonable assurance about whether the 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 audit 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 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 audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of OncoSec Medical Incorporated as of July 31, 2017 and 2016, and the results of their operations and their cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 3 to the financial statements, the Company has incurred recurring losses 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 financial statements. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ Mayer Hoffman McCann P.C.
San Diego, California
October 25, 2017

OncoSec Medical Incorporated

Consolidated Balance Sheet and Balance Sheet

	July 31, 2017	July 31, 2016
Assets		
Current assets		
Cash and cash equivalents	$11,444,676	$28,746,224
Prepaid expenses	1,068,947	656,434
Other current assets	—	14,750
Total Current Assets	12,513,623	29,417,408
Property and equipment, net	2,410,099	2,799,930
Other long-term assets	309,187	189,309
Total Assets	$15,232,909	$32,406,647
Liabilities and Stockholders' Equity		
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities	$3,281,133	$3,223,327
Accrued compensation related	114,841	242,924
Total Current Liabilities	3,395,974	3,466,251
Other long-term liabilities	1,140,953	887,292
Total Liabilities	4,536,927	4,353,543
Commitments and Contingencies (Note 9)		
Stockholders' Equity		
Common stock authorized - 160,000,000 common shares with a par value of $0.0001, common stock issued and outstanding — 21,618,194 and 18,036,263 common shares as of July 31, 2017 and July 31, 2016, respectively	2,162	1,804
Additional paid-in capital	93,866,088	88,257,430
Warrants issued and outstanding — 9,044,740 and 12,859,286 warrants as of July 31, 2017 and July 31, 2016, respectively	11,775,807	13,288,527
Accumulated other comprehensive loss	(3,620)	-
Accumulated deficit	(94,944,455)	(73,494,657)
Total Stockholders' Equity	10,695,982	28,053,104
Total Liabilities and Stockholders' Equity	$15,232,909	$32,406,647

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

F-2

OncoSec Medical Incorporated

Consolidated Statement of Operations and Statement of Operations

	Year Ended July 31, 2017	Year Ended July 31, 2016
Revenue	$—	$—
Expenses:		
Research and development	11,952,748	14,741,694
General and administrative	9,495,659	12,144,358
Loss from operations	(21,448,407)	(26,886,052)
Provision for income taxes	1,391	2,462
Net loss	$(21,449,798)	$(26,888,514)
Basic and diluted net loss per common share (1)	$(1.06)	$(1.63)
Weighted average shares used in computing basic and diluted net loss per common share (1)	20,189,678	16,514,737

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

OncoSec Medical Incorporated

Consolidated Statement of Comprehensive Loss and Statement of Comprehensive Loss

	Year Ended July 31, 2017	Year Ended July 31, 2016
Net Loss	$(21,449,798)	$(26,888,514)
Foreign currency translation adjustments	(3,620)	-
Comprehensive Loss	$(21,453,418)	$(26,888,514)

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

OncoSec Medical Incorporated

Consolidated Statement of Stockholders' Equity and Statement of Stockholders' Equity

	Common Stock		Additional Paid-In	Warrants		Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Shares	Amount	Income(Loss)	Deficit	Equity
Balance, July 31, 2015 (1)	14,820,854	$1,482	$71,596,179	1,895,102	$7,704,103	—	$(46,606,143)	$32,695,621
Exercise of common stock warrants	400,000	40	9,960	(600,000)	(6,000)	—	—	4,000
Common stock issued for services	7,500	1	55,386	—	—	—	—	55,387
Public offering on November 9, 2015, net of issuance costs of $613,915	2,142,860	214	5,047,405	1,178,573	1,838,476	—	—	6,886,095
Public offering on May 26, 2016, net of issuance costs of $767,700	665,049	67	4,468,484	10,629,717	4,715,304	—	—	9,183,855
Cancellation of expired warrants	—	—	963,356	(244,106)	(963,356)	—	—	-
Stock-based compensation expense	—	—	6,116,660	—	—	—	—	6,116,660
Net loss	—	—	—	—	—	—	(26,888,514)	(26,888,514)
Balance, July 31, 2016	18,036,263	1,804	88,257,430	12,859,286	13,288,527	—	(73,494,657)	28,053,104
Exercise of common stock warrants	3,544,593	354	68,537	(3,344,593)	(33,446)	—	—	35,445
Exercise of common stock options	918	—	—	—	—	—	—	—
Common stock issued for employee stock	36,420	4	44,057	—	—	—	—	44,061

purchase plan								
Cancellation of expired warrants	—	—	1,479,274	(469,953)	(1,479,274)	—	—	—
Stock-based compensation expense	—	—	4,016,790	—	—	—	—	4,016,790
Net loss and comprehensive loss	—	—	—	—	—	(3,620)	(21,449,798)	(21,453,418)
Balance, July 31, 2017	21,618,194	$2,162	$93,866,088	9,044,740	$11,775,807	$(3,620)	$(94,944,455)	$10,695,982

(1) See Note 1, “Reclassifications”

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

OncoSec Medical Incorporated

Consolidated Statement of Cash Flows and Statement of Cash Flows

	Year Ended July 31, 2017	Year Ended July 31, 2016
Operating activities		
Net loss	$(21,449,798)	$(26,888,514)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	379,988	355,583
Stock-based compensation	4,016,790	6,116,660
Common stock issued for services	—	55,387
Loss on disposal of property and equipment	—	203,196
Changes in operating assets and liabilities:		
(Increase) decrease in prepaid expenses	(130,926)	855,152
(Increase) decrease in other current assets	14,750	6,380
(Increase) decrease in other long-term assets	(88,473)	24,818
(Decrease) increase in accounts payable and accrued liabilities	(208,281)	861,634
(Decrease) increase in accrued compensation	(128,083)	(258,522)
(Decrease) increase in other long-term liabilities	253,661	854,773
(Decrease) Increase in accrued income taxes	—	(800)
Net cash used in operating activities	(17,340,372)	(17,814,253)
Investing activities		
Purchases of property and equipment	(21,562)	(1,470,635)
Leasehold improvements	—	(80,102)
Net cash used in investing activities	(21,562)	(1,550,737)
Financing activities		
Proceeds from issuance of common stock and warrants	—	17,451,565
Payment of financing and offering costs	(15,500)	(1,381,615)
Proceeds from exercise of warrants and issuance of common stock	79,506	6,000
Net cash provided by financing activities	64,006	16,075,950
Effect of foreign exchange rate changes on cash	(3,620)	—
Net decrease in cash	(17,301,548)	(3,289,040)
Cash and cash equivalents, at beginning of year	28,746,224	32,035,264
Cash and cash equivalents, at end of year	$11,444,676	$28,746,224
Supplemental disclosure for cash flow information:		
Cash paid during the period for:		
Interest	$—	$—
Income taxes	$1,391	$2,462
Noncash investing and financing transactions:		
Fair value of placement agent warrants issued in the public offerings	$—	$536,909
Expiration of warrants	$1,479,274	$963,356

Amounts accrued for offering costs	$256,296	$—

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Nature of Operations and Basis of Presentation

OncoSec Medical Incorporated (together with its subsidiaries, unless the context indicates otherwise, being collectively referred to as the "Company") began its operations as a biotechnology company in March 2011, following its completion of the acquisition of certain technology and related assets from Inovio Pharmaceuticals, Inc. ("Inovio"). The Company has not produced any revenues since its inception. The Company was incorporated in the State of Nevada on February 8, 2008 under the name of Netventory Solutions, Inc. and changed its name in March 2011 when it began operating as a biotechnology company.

The Company is a biotechnology company focused on designing, developing and commercializing innovative therapies and proprietary medical approaches to stimulate and guide an anti-tumor immune response for the treatment of cancer. Its core platform technology, ImmunoPulse®, is a drug-device therapeutic modality comprised of a proprietary intratumoral electroporation delivery device. The ImmunoPulse® platform is designed to deliver DNA-encoded drugs directly into a solid tumor and promote an inflammatory response against cancer. The ImmunoPulse® device can be adapted to treat different tumor types, and consists of an electrical pulse generator, a reusable handle and disposable applicators. The Company's lead product candidate, ImmunoPulse® IL-12, uses its electroporation device to deliver a DNA-encoded interleukin-12 ("IL-12"), called tavokinogene telseplasmid ("tavo"), with the aim of reversing the immunosuppressive microenvironment in the tumor and engendering a systemic anti-tumor response against untreated tumors in other parts of the body. In February 2017, the Company received Fast Track designation from the U.S. Food and Drug Administration ("FDA") for ImmunoPulse® IL-12, which could qualify ImmunoPulse® IL-12 for expedited FDA review, a rolling Biologics License Application review and certain other benefits.

The Company's current focus is to pursue its registration-directed study of ImmunoPulse® IL-12 in combination with an approved therapy for melanoma in patients who have shown resistance to or relapse from certain other cancer therapies, which is referred to as the PISCES study. Most of the Company's present activities are directed toward advancing the PISCES study. To this end, in May 2017, the Company entered into a clinical trial collaboration and supply agreement with a subsidiary of Merck & Co., Inc. ("Merck") in connection with the PISCES study, in which the Company has agreed to sponsor and fund the study and Merck has agreed to manufacture and suppy its anti-PD-1 therapy KEYTRUDA® for use in the study. The PISCES study opened for enrollment in October 2017.

The Company also intends to continue to pursue other ongoing or potential new trials and studies related to ImmunoPulse® IL-12, all with the goal of obtaining requisite regulatory approvals from the FDA and comparable regulators in certain other jurisdictions to market and sell this product candidate. For instance, the Company is in collaboration with the University of California, San Francisco ("UCSF"), the sponsor of a multi-center Phase II clinical trial evaluating ImmunoPulse® IL-12 in combination with Merck's KEYTRUDA® for the treatment of advanced,

metastatic melanoma in patients who are predicted to not respond to anti-PD-1 therapy alone. Merck is manufacturing and supplying its drug KEYTRUDA® to UCSF to support this trial. In addition, the Company is pursuing a biomarker-focused pilot study of ImmunoPulse® IL-12 in triple negative breast cancer, which is focused on evaluating the ability of ImmunoPulse® IL-12 to alter the tumor microenvironment and promote a pro-inflammatory response. In January 2017, the Company amended the clinical protocol for this study to improve the enrollment rate, as it had been slow to enroll, and in September 2017, the Company enrolled half the patients needed for the study, which is now open for enrollment and is ongoing. Additionally, the Company's Phase II clinical trials of ImmunoPulse® IL-12 as a monotherapy in Merkel Cell carcinoma, melanoma, and head and neck squamous cell carcinoma are now closed for enrollment, and databases are locked and clinical study reports are pending. The Company is no longer pursuing its Phase II clinical trial of ImmunoPulse® IL-12 as a monotherapy in cutaneous T-cell lymphoma, which has been closed.

In addition, the Company is developing its next-generation electroporation devices, including advancements toward prototypes, pursuing discovery research to identify other product candidates that, like IL-12, can be encoded into DNA, delivered intratumorally using electroporation and used to reverse the immunosuppressive mechanisms of a tumor, and aiming to expand its ImmunoPulse® pipeline beyond the delivery of plasmid-DNA encoding for cytokines to include other molecules that may be critical to key pathways associated with tumor immune subversion.

Basis of Presentation

In October 2016, the Company created an Australian corporation as its wholly-owned subsidiary. This corporation's functional currency, the Australian dollar, is also its reporting currency, and its financial statements are translated to U.S. dollars, the Company's reporting currency, prior to consolidation. The accompanying consolidated financial statements include the accounts of the Company and its subsidiary, and, in the opinion of management, reflect all adjustments necessary to state fairly the Company's financial position, results of operations and cash flows in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). All intercompany accounts and transactions have been eliminated in consolidation.

Reclassifications

Certain amounts in the accompanying balance sheet for the year ended July 31, 2016 have been reclassified and there was no effect on net loss at July 31, 2017.

Note 2—Significant Accounting Policies

Segment Reporting

The Company operates in a single reporting segment — the discovery and development of novel immunotherapeutic product candidates to improve treatment options for patients and physicians for a wide range of oncology indications.

Use of Estimates

The accompanying consolidated financial statements have been prepared in conformity with U.S. GAAP, which requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Such estimates include stock-based compensation, accounting for long-lived assets and accounting for income taxes including the related valuation allowance on the deferred tax asset and uncertain tax positions. The Company bases its estimates on historical experience and on various other assumptions that it believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. On an ongoing

basis, the Company reviews its estimates to ensure that they appropriately reflect changes in the business or as new information becomes available. Actual results could differ materially from these estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments that are readily convertible into cash and have an original maturity of three months or less at the time of purchase to be cash equivalents.

Concentrations and Credit Risk

The Company maintains cash balances at a small number of financial institutions, where such balances commonly exceed the $250,000 amount insured by the Federal Deposit Insurance Corporation. The Company has not experienced any losses in such accounts and management believes that the Company does not have significant credit risk with respect to its cash and cash equivalents.

Property and Equipment

The Company's capitalization threshold is $5,000 for 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 as follows:

Computers and Equipment:	3 to 10 years
Computer Software:	1 to 3 years
Leasehold Improvements:	Shorter of lease period or useful life

Impairment of Long-Lived Assets

The Company periodically assesses the carrying value of intangible and other long-lived assets, and whenever events or changes in circumstances indicate that the carrying amount of an asset might not be recoverable. The assets are considered to be impaired if the Company determines that the carrying value may not be recoverable based upon its assessment, which includes consideration of the following events or changes in circumstances:

- the asset's ability to continue to generate income from operations and positive cash flow in future periods;
- loss of legal ownership or title to the asset;
- significant changes in the Company's strategic business objectives and utilization of the asset(s); and
- the impact of significant negative industry or economic trends.

If the assets are considered to be impaired, the impairment recognized is the amount by which the carrying value of the assets exceeds the fair value of the assets. Fair value is determined by the application of discounted cash flow models to project cash flows from the asset. In addition, the Company bases estimates of the useful lives and related amortization or depreciation expense on its subjective estimate of the period the assets will generate revenue or otherwise be used by it. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less selling costs. The Company also periodically reviews the lives assigned to long-lived assets to ensure that the initial estimates do not exceed any revised estimated periods from which the Company expects to realize cash flows from its assets.

Financial Instruments

The carrying amounts for cash and cash equivalents, prepaid expenses, accounts payable and accrued expenses approximate fair value due to their short-term nature, generally less than three months. 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 expressly disclosed.

Warrants

The Company assesses its warrants as either equity or a liability 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 balance sheet 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 balance sheet at their fair value on the date of issuance and are re-measured 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 other instruments on the valuation date, as well as assumptions for future financings, expected volatility, expected life, yield and risk-free interest rate. As of July 31, 2017, all outstanding warrants issued by the Company were classified as equity.

Net Loss Per Share

The Company computes basic net loss per common share by dividing the applicable net loss by the weighted average number of common shares outstanding during the period. Diluted earnings per share is computed using the weighted average number of common shares outstanding during the period, plus additional shares to account for 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 applicable 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, restricted stock units and warrants issued and outstanding during any of the periods presented in the computation of net loss per share, as the effect would have been anti-dilutive.

Potentially dilutive outstanding securities excluded from diluted net loss per common share because of their anti-dilutive effect were as follows:

	July 31, 2017	July 31, 2016
Stock Options	3,653,641	3,263,460
Restricted Stock Units	1,100,000	655,000
Warrants	9,044,740	12,859,286
	13,798,381	16,777,746

Stock-Based Compensation

The Company grants equity-based awards (typically stock options or restricted stock units) under our stock-based compensation plan and outside of our stock-based compensation plan, with terms generally similar to the terms under our stock-based compensation plan. The Company estimates the fair value of stock option 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. The Company estimates the fair value of restricted stock unit awards based on the closing price of the Company's common stock on the date of issuance. Changes in assumptions used under the Black-Scholes option valuation model could materially affect the Company's net loss and net loss per share. Stock options granted to non-employees are re-measured at each reporting period until fully vested, with any change in fair value expensed.

Employee Stock Purchase Plan

Employees may elect to participate in the Company's stockholder approved employee stock purchase plan. The stock purchase plan allows for the purchase of the Company's common stock at not less than 85% of the lesser of (i) the fair market value of a share of common stock on the beginning date of the offering period or (ii) the fair market value of a share of common stock on the purchase date of the offering period, subject to a share and dollar limit as defined in the plan and subject to the applicable legal requirements. There are two six-month offering periods during each fiscal year, ending on January 31, 2017 and July 31, 2017.

In accordance with applicable accounting guidance, the fair value of awards under the stock purchase plan is calculated at the beginning of each offering period. The Company estimates the fair value of the awards using the Black-Scholes option valuation model. 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 the offering period. This fair value is then amortized at the beginning of the offering period. Stock-based compensation expense is based on awards expected to be purchased at the beginning of the offering period, and therefore is reduced when participants withdraw during the offering period.

Accumulated and Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) includes foreign currency translation adjustments related to the Company's subsidiary in Australia and is excluded from the accompanying consolidated statements of operations.

Recent Accounting Pronouncements

The following discussion includes recent accounting pronouncements that are anticipated to have an impact on or are otherwise related to the Company's financial condition, results of operations or related disclosures. Recent accounting pronouncements that are not anticipated to have an impact on or are unrelated to the Company's financial condition, results of operations or related disclosures are not discussed.

In August 2014, the Financial Accounting Standards Board ("FASB"), issued Accounting Standards Update ("ASU") No. 2014-15, *Presentation of Financial Statements—Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which is intended to define management's responsibility to evaluate whether there is substantial doubt about an organization's ability to continue as a going concern and to provide related financial statement footnote disclosures. This ASU provides guidance to an organization's management, with principles and definitions that are intended to reduce diversity in the timing and content of disclosures that are commonly provided by organizations in the financial statement footnotes. The amendments are effective for annual periods ending after December 15, 2016, and interim periods within annual periods beginning after December 15, 2016. The Company adopted this guidance for the annual period ended July 31, 2017.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases ("ASU 2016-02"). ASU 2016-02 establishes a right-of-use model that requires a lessee to record an asset and liability on the balance sheet for all leases with terms longer than 12 months. ASU 2016-02 is effective for fiscal years and interim periods beginning after December 15, 2018. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The Company is currently evaluating the impact of the new standard on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The amendments cover both public and private companies that issue share-based payment awards to their employees. Under the amendment, several aspects of the accounting for share-based payment award transactions are simplified, including: (i) income tax consequences; (ii) classification of awards as either equity or liabilities; and (iii) classification on the statement of cash flows. For public companies, the amendments are effective for annual periods beginning after December 15, 2016, and interim periods within those

annual periods. Early application is permitted; however, the Company does not intend to early adopt and the Company does not believe that adoption of these clarifying amendments will have a material impact on its consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, *Compensation - Stock Compensation (Topic 718) ("ASU 2017-09"),* which provides further guidance as to what constitutes a modification to the terms of share-based compensation, in order to create consistency in practice among all entities. ASU 2017-09 becomes effective for annual reporting periods beginning after December 15, 2017, including interim periods thereafter; early adoption is permitted, including adoption in an interim period. The Company intends to adopt this standard as of August 1, 2018, and does not anticipate this standard will have a material impact on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows ("ASU 2016-15"), to reduce diversity in practice of how certain transactions are classified in the statement of cash flows. ASU 2016-15 is effective for fiscal and interim periods beginning after December 15, 2017. The Company is currently evaluating the impact the adoption of the new standard will have on its consolidated financial statements.

In January 2017, the FASB issued guidance codified in ASU 2017-04, *Intangibles-Goodwill and Other (Topic 350) Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). Under this guidance, an entity will no longer determine goodwill impairment by calculating the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. Instead, an entity will compare the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The guidance is effective for fiscal years beginning after December 15, 2019, including interim periods therein, with early adoption permitted. The Company will evaluate the impact of this guidance and expects to adopt the standard in the first calendar quarter of 2019. The Company does not currently have any intangible or goodwill balances.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260), Distinguishing Equity from Liabilities (Topic 480) and Derivatives and Hedging (Topic 815) ("ASU 2017-11"),* which addresses the complexity of accounting for certain financial instruments with down-round features and finalizes pending guidance related to mandatorily redeemable noncontrolling interests. Under ASU 2017-11, when determining whether certain financial instruments should be classified as liabilities or equity instruments, a down-round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. ASU 2017-11 becomes effective for annual reporting periods beginning after December 15, 2018, including interim periods thereafter; early adoption is permitted, including adoption in an interim period. As the Company currently does not hold this type of financing instrument, the Company does not anticipate the standard will have a material impact on its consolidated financial statements.

Note 3—Cash and Cash Equivalents and Liquidity

The Company considers all liquid investments with maturities of three months or less when purchased to be cash equivalents. As of July 31, 2017 and 2016, cash and cash equivalents were principally comprised of cash in savings and checking accounts.

The Company does not believe it has sufficient cash on-hand to support its operations for the next 12 months, and the Company does not generate any cash from its operations and its does not currently have any firm commitments for future capital. Consequently, the Company will need significant additional capital to continue operating its business and fund its planned operations, including research and development, clinical trials and, if regulatory approval is obtained, commercialization of its potential product candidates. In addition, the Company will require additional financing if it desires to in-license or acquire new assets, research and develop new compounds or new technologies and pursue related patent protection, or obtain any other intellectual property rights or other assets.

Historically, the Company has raised the majority of the funding for its business through offerings of its common stock and warrants to purchase its common stock. Although the Company is exploring other ways of funding its

operations that involve less dilution to its existing stockholders', including, among others, technology licensing or other collaboration arrangements, debt financings or grants, the Company has not successfully established or raised any funds through any of these types of arrangements, and it may need to continue to seek funding for its operations through additional dilutive public or private equity financings. If the Company issues equity or convertible debt securities to raise additional funds, its existing stockholders would experience further dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of its existing stockholders. If the Company incurs debt, its fixed payment obligations, liabilities and leverage relative to our equity capitalization would increase, which could increase the cost of future capital. Further, the terms of any debt securities the Company issues or borrowings it incurs, if available, could impose significant restrictions on its operations, such as limitations on its ability to incur additional debt or issue additional equity or other operating restrictions that could adversely affect its ability to conduct its business, and any such debt could be secured by any or all of the Company's assets pledged as collateral. Additionally, the Company may incur substantial costs in pursuing future capital, including investment banking, legal and accounting fees, printing and distribution expenses and other costs.

Moreover, equity or debt financings or any other source of capital may not be available when needed or at all, or, if available, may not be available on commercially reasonable terms. Weak economic and capital market conditions generally or uncertain conditions in the Company's industry could increase the challenges it faces in raising capital for its operations. In recent periods, the capital and financial markets for early and development-stage biotechnology and life science company stocks have been volatile and uncertain. If the Company cannot raise the funds that it needs, it could be forced to delay or scale down some or all of its development activities or cease all operations, and its stockholders could lose all of their investment in the Company.

Going Concern

The accompanying consolidated financial statements have been prepared on the going concern basis of accounting, which assumes the Company will continue to operate as a going concern and which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The Company has sustained substantial losses of $21.4 million and $26.9 million for the years ended July 31, 2017 and 2016, respectively, and cumulative losses since inception of $94.9 million. In addition, as of July 31, 2017, the Company had cash and cash equivalents of approximately $11.4 million and, as of that date, the Company estimated its cash requirements for the following 12 months to be approximately $21.0 million. Based on the Company's cash levels (taking into account the expected aggregate net proceeds from the Company's recent October 2017 equity offerings, (see Note 13) and the current rate of cash consumption and expectations regarding future expenses, as well as its lack of any revenue-generating activities or firm commitments for future capital, the Company estimates it will need additional capital by the third calendar quarter of 2018 and its prospects for obtaining that capital are uncertain. The Company may seek to pursue debt or equity financings or alternative sources of funding to raise additional capital, but no such capital may be available when needed, on acceptable terms or at all. As a result of the Company's historical losses and financial condition, there is substantial doubt about its ability to continue as a going concern.

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.

At July 31, 2017 and 2016, approximately $90,000 was recorded in other long-term assets relating to a long-term certificate of deposit, which is classified within Level 1.

Note 5—Balance Sheet Details

Property and Equipment

Property and equipment, net, is comprised of the following:

	July 31, 2017	July 31, 2016
Computers and Equipment	$2,861,632	$2,866,879
Computer Software	292,034	211,228
Leasehold Improvements	80,102	80,102
Construction In Progress	-	85,402
Property and Equipment, gross	3,233,768	3,243,611
Accumulated Depreciation and Amortization	(823,669)	(443,681)
	$2,410,099	$2,799,930

Depreciation and amortization expense recorded for the years ended July 31, 2017 and 2016 was approximately $380,000 and $356,000, respectively.

Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities are comprised of the following:

	July 31, 2017	July 31, 2016
Research and Development Costs	$1,537,892	$2,389,711
Professional and Other Outside Service Fees	1,584,899	707,070
Office Equipment (not-capitalized)	—	794
Other	158,342	125,752
	$3,281,133	$3,223,327

Accrued Compensation

Accrued compensation is comprised of the following:

	July 31, 2017	July 31, 2016
Separation Costs	$—	$134,993
Accrued payroll	100,295	93,021
401K costs	14,222	14,365
Other	324	545
	$114,841	$242,924

Separation costs relate to agreements with certain of the Company's former executive officers—see Note 9, Commitments and Contingencies for more information.

Other Long-Term Liabilities

Other long-term liabilities are comprised of the following:

	July 31, 2017	July 31, 2016
Deferred Rent	$1,140,953	$887,292
	$1,140,953	$887,292

At July 31, 2017, the deferred rent liability is related to the Company's straight-line expense recognition of rent for its corporate headquarters. See Note 9, Commitments and Contingencies, for more information.

Note 6—Equity Offerings

October 2017 Offerings

In October 2017, the Company entered into securities purchase agreements with several accredited investors in connection with its offering and sale of shares of its common stock and warrants to purchase shares of its common stock. See Note 13 for information about these offerings.

ATM Program

On July 25, 2017, the Company entered into an equity distribution agreement with Oppenheimer & Co. Inc., Oppenheimer, to commence an "at the market" offering program, or the ATM Program, under which the Company was permitted to offer and sell, from time to time through or to Oppenheimer, acting as sales agent or principal, shares of the Company's common stock having an aggregate gross sales price of up to $8.4 million. No shares of the Company's common stock were sold in the ATM Program during the periods covered by the accompanying consolidated financial statements. Subsequent to such periods, effective as of October 22, 2017, the Company terminated the ATM Program. As a result of such termination, no further offers or sales of the Company's common stock will be made in the ATM Program. As of the date of such termination, the Company had sold an aggregate of 897,311 shares of the Company's common stock in the ATM Program, for net proceeds to the Company, after deducting Oppenheimer's commissions and other expenses paid or payable by the Company, of $1.1 million (see Note 13).

May 2016 Offering

On May 26, 2016, the Company completed an offer and sale to a single healthcare-dedicated institutional fund of 665,049 shares of its common stock, Series A Warrants to purchase up to an aggregate of 5,509,642 shares of its common stock at an exercise price of $1.69 per share with a term of nine years, and Series B Warrants to purchase up to an aggregate of 4,844,593 shares of its common stock at an exercise price of $0.01 and which expire upon their exercise in full. All warrants issued to the investor were immediately exercisable. The investor paid a purchase price of $1.815 per share of common stock and an accompanying Series A Warrant to purchase one share of common stock and $1.805 per Series B Warrant and accompanying Series A warrant to purchase one share of common stock. The gross proceeds of the offering were $9.9 million, and the net proceeds, after deducting the placement agent's fee, financial advisory fees and other offering expenses paid by the Company, were $9.2 million. At the closing of the offering, the Company also issued warrants to purchase up to an aggregate of 275,482 shares of its common stock to the placement agents for the offering, which have an exercise price of $2.26875, are immediately exercisable and expire on May 24, 2021.

The fair value of the Series A Warrants and Series B Warrants issued to the investor in the offering, based on their fair value relative to the common stock issued, was $4.4 million (based on the Black-Scholes option valuation model assuming no dividend yield, a nine year life, volatility of 100.03% and a risk-free interest rate of 1.74%), of which $48,446 of the relative fair market value was ascribed to the Series B Warrants, based on the number of warrants issued at its exercise price of $0.01 per share. The Company completed an evaluation of the Series A Warrants and Series B Warrants issued to the investor in the offering and the warrants issued to the placement agents in the offering, and determined that all such warrants should be classified as equity within the accompanying consolidated balance sheets.

November 2015 Offering

On November 9, 2015, the Company completed an offer and sale of an aggregate of 2,142,860 shares of its common stock, together with accompanying warrants to purchase an aggregate of 1,071,430 shares of its common stock, at a purchase price of $3.50 per share. The warrants have an exercise price of $4.50 per share, became exercisable on May 9, 2016 and expire on May 9, 2021. The gross proceeds of the offering were $7.5 million, and the net proceeds, after deducting the placement agent's fee and other offering fees and expenses paid by the Company, were $6.9 million. In connection with the offering, the Company paid the placement agent (i) 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, and (ii) warrants to purchase up to an aggregate of 107,143 shares of its common stock. The warrants issued to the placement agent are exercisable at an exercise price of $4.375 per share, have a term of five years, became exercisable on May 9, 2016, and expire on November 9, 2020.

The fair value of the warrants issued to the purchasers in the offering, based on their fair value relative to the common stock issued, was approximately $1.6 million (based on the Black-Scholes option valuation model assuming no dividend yield, a 5.05-year life, volatility of 88.63% and a risk-free interest rate of 1.75%).

The fair value of the warrants issued to the placement agent in the offering was $0.2 million (based on the Black-Scholes option valuation model assuming no dividend yield, a five-year life, volatility of 89.08% and a risk-free interest rate of 1.75%). The Company completed an evaluation of these warrants and determined they should be classified as equity within the accompanying consolidated balance sheets.

June 2015 Public Offering

On June 8, 2015, the Company completed an offer and sale of an aggregate of 2,469,091 shares of its common stock at a purchase price of $5.50 per share. The gross proceeds of the offering were $13.6 million, and the net proceeds, after deducting the placement agents' fees and other offering fees and expenses paid by the Company, were $12.5 million. In connection with the offering, the Company issued to the placement agents for the offering warrants to purchase up to an aggregate of 123,455 shares of its common stock, which are exercisable at $6.88 per share as of December 8, 2015 and will expire on May 12, 2019. The fair value of the warrants issued to the placement agent in the offering was $0.6 million (based on the Black-Scholes option valuation model assuming no dividend yield, a five-year life, volatility of 88.40% and a risk-free interest rate of 1.72%). The Company completed an evaluation of these warrants and determined the warrants should be classified as equity within the accompanying consolidated balance sheets.

Outstanding Warrants

At July 31, 2017, the Company had outstanding warrants to purchase 9,044,740 shares of its common stock, with exercise prices ranging from $0.01 to $18.00, all of which were classified as equity instruments. These warrants expire at various dates between September 2017 and May 2025, with the exception of the Series B Warrants issued in the Company's May 2016 offering, described above, which expire upon their exercise in full. At July 31, 2017, there were 900,000 Series B Warrants outstanding.

Dividends

The Company has not adopted a formal policy regarding the payment of dividends, and no dividends were paid during the periods presented.

Note 7 — Stock-Based Compensation

2011 Plan

The OncoSec Medical Incorporated 2011 Stock Incentive Plan (as amended and approved by the Company's stockholders (the "2011 Plan"), authorizes the Company's Board of Directors to grant equity awards, including stock options and restricted stock units, to employees, directors and consultants. The 2011 Plan includes an automatic increase of the number of shares of common stock reserved thereunder on the first business day of each calendar year by the lesser of: (i) 3% of the shares of the Company's common stock outstanding as of the last day of the immediately preceding calendar year; (ii) 500,000 shares; or, (iii) such lesser number of shares as determined by the Company's Board of Directors. As of July 31, 2017, there were an aggregate of 5,000,000 shares of the Company's common stock authorized for issuance pursuant to awards granted under the 2011 Plan. The 2011 Plan allows for an annual fiscal year per-individual grant of up to 500,000 shares of its common stock. Under the 2011 Plan, incentive stock options are to be granted at a price that is no less than 100% of the fair value of the Company's common stock at the date of grant. Stock options vest over a period specified in the individual option agreements entered into with grantees, and are exercisable for a maximum period of 10 years after the date of grant. Stock 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 of no less than 110% of the fair value of the Company's common stock on the date of grant.

Stock Options

On December 14, 2016, the Company completed an offer (the "Exchange Offer") to exchange certain stock options to purchase shares of its common stock for a lesser number of new stock options with a lower exercise price. Stock options with an exercise price greater than or equal to $3.00 and held by employees, directors, and consultants in continuous service for the Company through the completion of the Exchange Offer were eligible for exchange. In the Exchange Offer, an exchange rate of 2-for-1 applied to stock options with an exercise price from $3.00 to $9.99, and an exchange rate of 3-for-1 applied to stock options with an exercise price of $10.00 or more. Each new stock option granted in the Exchange Offer was granted pursuant to the 2011 Plan on the date the Exchange Offer closed and has an exercise price equal to the market price of the Company's common stock on that date. At the closing of the Exchange Offer, 29 eligible participants had exchanged stock options to purchase 2,214,500 shares of the Company's common stock for new stock options to purchase 1,070,536 shares of the Company's common stock.

During the fiscal year ended July 31, 2017, the Company granted options to purchase 1,841,037, 355,416 and 832,083 shares of its common stock to employees, directors and consultants under the 2011 Plan, respectively. The stock options issued to employees have a 10-year term, vest over three years, and have exercise prices ranging from $1.11 to $1.94. The stock options issued to directors have a ten-year term, vest monthly in equal increments over one year and have exercise prices ranging from $1.29 to $1.34. The stock options issued to consultants have three-year terms, vest in accordance with the terms of the applicable consulting agreement, and have exercise prices ranging from $1.29 to $2.00.

During the fiscal year ended July 31, 2016, the Company granted options to purchase 1,995,750, 655,500 and 78,000 shares of the Company's common stock to employees, directors and consultants under the 2011 Plan, respectively. The stock options issued to employees have a 10-year term, vest over three years, and have exercise prices ranging from $1.64 to $6.21. The stock options issued to directors have a 10-year term, vest quarterly in equal increments over one year and have exercise prices ranging from $2.02 to $5.76. The stock options issued to consultants have one- to three-year terms, vest in accordance with the terms of the applicable consulting agreement, and have exercise prices ranging from $2.02 to $5.76.

A summary of the Company's stock option activity for the years ended July 31, 2017 and 2016 is as follows:

	Option Shares Outstanding	Weighted -Average Exercise Price	Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value ($000's)
Balance at July 31, 2015	1,148,764	$ 9.20	—	$ 216
Granted	2,729,250	4.84	—	—
Exercised	—	—	—	—
Forfeited / Cancelled / Expired	(614,554)	7.49	—	33
Balance at July 31, 2016	3,263,460	5.88	8.3	9
Granted	3,028,536	1.41	—	—
Exercised	(7,500)	1.29	—	2
Forfeited / Cancelled / Expired	(2,648,855)	6.21	—	—
Balance at July 31, 2017	3,635,641	1.94	7.923	—
Exercisable at July 31, 2017	1,990,521	$ 2.29	7.269	$ —

The weighted-average grant date fair value of stock options granted during the years ended July 31, 2017 and 2016 was $0.69 and $3.45, respectively. As of July 31, 2017, there was approximately $1.4 million of unrecognized

non-cash compensation cost related to unvested options, which will be recognized over a weighted average period of 2.02 years. The weighted-average fair value of stock options vested during the years ended July 31, 2017 and 2016 was $1.35 and $5.69, respectively.

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 stock options granted pursuant to a consulting agreement, in which case the stock option vesting period and the service period are defined pursuant to the terms of the consulting agreement. Stock-based compensation expense for awards granted during the fiscal years ended July 31, 2017 and 2016 were based on the grant date fair value estimated using the Black-Scholes option valuation model. Stock-based compensation expense related to stock options granted to consultants in which the options are not entirely vested at the grant date are generally re-measured each month.

The following assumptions were used for the Black-Scholes calculation of the fair value of stock-based compensation related to stock options granted during the periods presented:

	Fiscal Year Ended	Fiscal Year Ended
	July 31, 2017	July 31, 2016
Expected volatility	71.9% - 124.5 %	83.57% - 98.23 %
Risk-free interest rate	0.82% - 2.52 %	0.71% - 2.01 %
Expected forfeiture rate	0.00 %	0.00 %
Expected dividend yield	—	—
Expected term	2.08 – 10 years	2.08 – 10 years

Expected price volatility is the measure by which the Company's stock price is expected to fluctuate during the expected term of a stock option. The Company's common stock first became available for trading on April 8, 2011. In situations where a 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 estimating this assumption by basing its expected volatility on the historical, expected, or implied volatility of similar entities whose stock 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 its stock became available for trading, as well as the historical daily changes in the market price of its peer group, based on weighting, as determined by the Company.

The expected term of the stock options represents the period that stock-based awards are expected to be outstanding based on the simplified method provided in FASB Accounting Standards Codification ("ASC") Topic 718, which averages an award's weighted-average vesting period and contractual term for stock options and warrants. The Company will continue to use the simplified method for the expected term of stock options issued to employees and directors until it has the historical data necessary to provide a reasonable estimate of expected life in accordance with FASB ASC Topic 718, as amended by Staff Accounting Bulletin 110. The Company expects to continually evaluate its historical data as a basis for determining the expected terms of stock 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 accompanying 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. Because the Company records stock-based compensation monthly and utilizes annual vesting and/or monthly vesting, the Company has estimated the forfeiture rate of its outstanding stock options as zero, as the Company can adjust stock-based compensation due to terminations in the month of termination.

Stock-based compensation expense (resulting from stock options awarded) recorded in the accompanying consolidated statements of operations for the years ended July 31, 2017 and 2016 was approximately $3.6 million and $6.1 million, respectively. During the fiscal years ended July 31, 2017 and 2016, approximately $1.1 million and $1.0 million of this amount, respectively, was recorded to research and development expenses, and approximately $2.5 and $5.1 million of this amount, respectively, was recorded in general and administrative expenses.

Restricted Stock Unit Awards

In March 2017, the Company granted 525,000 restricted stock unit awards ("RSUs") to employees under the 2011 Plan. All RSUs vest in full three years following the date of grant. The closing price of the Company's common stock on the date of grant was $1.34 per share, which is the fair market value per unit of the RSUs. Stock-based compensation expense related to all RSUs granted in the fiscal year ended July 31, 2017 was $462,000, of which $90,000 was recorded to research and development expenses and $372,000 was recorded in general and administrative expenses. As of July 31, 2017, there were 1,100,000 RSUs outstanding.

In March 2016, the Company granted 555,000, 100,000 and 25,000 RSUs to certain employees, directors and consultants, respectively, under the 2011 Plan. All RSUs vest in full three years following the date of grant. The closing price of the Company's common stock on the date of grant was $2.02 per share, which is the fair market value per unit for the RSUs. Stock-based compensation expense related to RSUs granted in the fiscal year ended July 31, 2016 was $184,000, of which $41,000 was recorded in research and development expenses and $143,000 was recorded in general and administrative expenses. As of July 31, 2016, there were 655,000 RSUs outstanding.

2015 Employee Stock Purchase Plan

Under the Company's 2015 Employee Stock Purchase Plan ("ESPP"), the Company is authorized to issue 500,000 shares of the Company's common stock. The first offering period under the ESPP ended on July 31, 2016, with 17,789 shares purchased and distributed to employees. The second offering period under the ESPP ended on January 31, 2017, with 18,631 shares purchased and distributed to employees, and the third offering period under the ESPP ended on July 31, 2017, with 21,646 shares purchased and distributed to employees. At July 31, 2017, there were 463,580 shares remaining available for issuance under the ESPP.

The ESPP is considered a Type B plan under FASB ASC Topic 718 because the number of shares a participant is permitted to purchase is not fixed based on the stock price at the beginning of the offering period and the expected withholdings. The ESPP enables the participant to "buy-up" to the plan's share limit, if the stock price is lower on the purchase date. As a result, the fair value of the awards granted under the ESPP is calculated at the beginning of each offering period as the sum of:

15% of the share price of an unvested share at the beginning of the offering period,

85% of the fair market value of a six-month call on the unvested share aforementioned, and

15% of the fair market value of a six-month put on the unvested share aforementioned.

The fair market value of the six-month call and six-month put are based on the Black-Scholes option valuation model. For the six-month offering period ended January 31, 2017, the following assumptions were used: six-month maturity, 0.40% risk free interest, 96.91% volatility, 0% forfeitures and $0 dividends. For the six-month offering period ended July 31, 2017, the following assumptions were used: six-month maturity, 0.65% risk free interest, 132.68% volatility, 0% forfeitures and $0 dividends.

Approximately $23,000 and $16,000 was recorded as stock-based compensation during the years ended July 31, 2017 and 2016, respectively.

Common Stock Reserved for Future Issuance

The following table summarizes all common stock reserved for future issuance at July 31, 2017:

Common Stock options outstanding (within the 2011 Plan and outside of the terms of the 2011 Plan)	3,635,641
Common Stock reserved for restricted stock unit release	1,100,000
Common Stock authorized for future grant under the 2011 Plan	526,637
Common Stock reserved for warrant exercise	9,044,740
Commons Stock reserved for future ESSP issuance	463,580
Total common stock reserved for future issuance	14,770,598

Note 8—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 the 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.

The Company recognizes interest and/or penalties related to income tax matters in income tax expense. The Company has not recognized any interest and/or penalties in the accompanying consolidated statements of operations for the years ended July 31, 2017 and 2016.

The Company is subject to taxation in the United States, various states and in Australia. The Company's tax years for 2008 and forward and 2011 and forward are subject to examination by the United States federal tax authorities and California tax authorities, respectively, due to the carry forward of unutilized net operating losses and research and development tax credits.

At July 31, 2017, the Company had federal and California income tax net operating loss carryforwards of approximately $77.6 million and $72.5 million, respectively. In addition, the Company has federal and California research and development tax credit carryforwards of approximately $1.2 million and $1.3 million, respectively. The Company also has California Hiring Credits of approximately $9,300. The federal net operating loss and research and development tax credit carryforwards and California net operating loss carryforwards will begin to expire in 2027 unless previously utilized. The California research and development tax credit carryforwards will carry forward indefinitely until utilized. The Company has foreign net operating loss carryforwards in Australia of $0.6 million. The Company has not completed a study to assess whether one or more ownership changes, as defined by Section 382/383 of the Internal Revenue Code of 1986, as amended (the "Code"), have occurred 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 ownership changes have occurred. The Company estimates that if such an ownership change has occurred, the federal and state net operating loss carry-forwards and research and development tax credits that can be utilized in the future will be significantly limited. The Company may never be able to realize the benefit of some or all of the federal or state net operating loss carryforwards or research and development tax credit carryforwards, either due to ongoing operating losses or due to ownership changes, which limits the usefulness of the loss carryforwards.

Significant components of the Company's deferred tax assets as of July 31, 2017 and 2016 are as follows:

	2017	2016
Net operating loss carryforwards	$30,237,000	$23,568,000
Credits	2,004,000	1,440,000
Start-up costs	46,000	51,000
Accumulated depreciation	170,000	341,000
Option and stock awards	4,886,000	3,347,000
Other	686,000	503,000
Net deferred tax assets	38,029,000	29,250,000
Valuation allowance for deferred tax assets	(38,029,000)	(29,250,000)
Net deferred taxes	$-	$-

A valuation allowance of $38.0 million and $29.3 million at July 31, 2017 and 2016, respectively, has been recognized to offset the net deferred tax assets as realization of such assets is uncertain. The valuation allowance increased by $8.8M and $10.4M for the years ended July 31, 2017 and 2016, respectively.

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

	2017	2016
Federal tax benefit at the expected statutory rate	34.00 %	34.00 %
State income tax, net of federal tax benefit	0.00 %	0.00 %
Non-deductible expenses	(0.94)%	(2.21)%
Change in valuation allowance	(33.74)%	(32.83)%
Other	0.67 %	1.03 %
Income tax benefit - effective rate	(0.01)%	(0.01)%

Note 9—Commitments and Contingencies

In the ordinary course of business, the Company may become a party to lawsuits involving various matters. The Company is not currently a party, and its properties are not currently subject, to any legal proceedings that, in the opinion of management, are expected to have a material adverse effect on the Company's business, financial condition or results of operations.

Effective November 1, 2015, the Company entered into a 12-month lease agreement for office space in Campbell, California to support its legal department. The base rent under this agreement is $2,008 per month.

On December 31, 2014, the Company entered into a lease agreement for approximately 34,000 rentable square feet located at 5820 Nancy Ridge Drive, San Diego, California, which serves as the Company's corporate headquarters and research and development laboratory. The term of the lease commenced on October 19, 2015 and expires on October 19, 2025, although the Company has an option to extend the lease for an additional five years following this expiration date, if it provides notice of such extension within 12 months prior to such expiration date. The Company also has the right to terminate the lease after the end of the 84th month following its commencement of rent payments under the lease agreement, if it provides notice of such termination at least 12 months in advance and pays certain early termination fees. Base rent under the lease agreement is approximately $90,000 per month, although the Company received a 12-month rent abatement for its first year of occupancy, and increases by 3% annually. The lease agreement also requires the Company to share in certain monthly operating expenses of the premises, and required the Company to pay a security deposit of approximately $90,000 in December 2014 upon entering into the lease agreement.

Total rent expense for the years ended July 31, 2017 and 2016 was approximately $1.6 million and $1.4 million, respectively.

At July 31, 2017, future minimum lease payments under the Company's non-cancelable operating leases are as follows:

Year Ending July 31,	Operating Lease
2018	$1,167,862
2019	1,178,575
2020	1,212,916
2021	1,249,304
2022	1,286,783
Thereafter	4,447,478
Total minimum payments	$10,542,918

The Company has entered into employment agreements with each of its executive officers. Generally, the terms of each agreement provide that, if the Company terminates the officer other than for cause, death or disability, or if the officer terminates his or her employment with the Company for good cause, the officer shall be entitled to receive severance compensation equal to either six or 12 months of his or her then-current annual base salary, plus any accrued bonus, plus six or 12 months of benefits coverage.

On April 15, 2016, the Company and the Company's former Chief Scientific Officer ("CSO") entered into a separation, release and consulting agreement, pursuant to which, effective June 18, 2016, the former CSO voluntarily resigned from the Company and became a consultant of the Company. The terms of the agreement provided for no severance compensation related to the termination of employment, but did provide for a fee of $30,000 per month for consulting services. The consulting services under the agreement terminated automatically on June 18, 2017. On the date of termination of the CSO's employment, the Company recorded a liability of $360,000 on its consolidated balance sheet, as the consulting services to be performed thereafter were not substantive, and the offsetting charge was recorded in research and development expense as other outside service fees. As of July 31, 2017, the Company had paid the entire $360,000 against the liability.

On December 27, 2015, the Company and the Company's former Chief Medical Officer ("CMO") entered into a separation and release agreement in connection with the CMO's termination of employment with the Company. Pursuant to the agreement, the Company paid the former CMO severance compensation of $286,000, less applicable withholdings, in the form of salary continuation in accordance with the Company's customary payroll practices. In addition, the CMO was eligible to receive a bonus for the 2015 calendar year if the Company's Board of Directors or Compensation Committee chose to grant discretionary bonuses to the Company's other officers; however, no such bonuses were granted from such period. On the date of termination of the CMO's employment, the Company recorded a liability of $286,000 on its consolidated balance sheet, and the offsetting charge was recorded in research and development expense as salary expense. As of July 31, 2017, the Company had paid the entire $286,000 against the liability.

Note 10—401(k) Plan

Effective May 15, 2012, the Company adopted a defined contribution savings plan pursuant to Section 401(k) of the Code. The plan is for the benefit of all qualifying employees and permits voluntary contributions by employees of up to 100% of eligible compensation, subject to the maximum limits imposed by Internal Revenue Service. The terms of the plan allow for discretionary employer contributions and the Company currently matches 100% of its employees' contributions, up to 3% of their annual compensation. The Company's contributions are recorded as expense in the accompanying consolidated statements of operations and totaled approximately $87,000 and $236,000 for the fiscal years ended July 31, 2017 and 2016, respectively.

Note 11—Related Party Transactions

The Company has subleased a portion of its office space to another company. The Company's President and Chief Executive Officer and two other members of the Company's Board of Directors hold positions as directors and/or officers of the sublessee. The Company had received payments totaling $15,000 related to the sublease as of July 31, 2017.

Note 12—Quarterly Financial Data (Unaudited)

The following financial information reflects all normal recurring adjustments, which are, in the opinion of management, necessary for a fair statement of the Company's consolidated results of operations for the interim periods presented. Results for any quarterly or other period are not necessarily indicative of the results to be expected in any other period. Summarized quarterly data for the Company's fiscal years ended July 31, 2017 and 2016 are as follows:

	Year ended July 31, 2017			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Selected quarterly financial data:				
Revenue	$—	$—	$—	$—
Expenses:				
Research and development	3,099,739	2,882,611	2,656,073	3,314,325
General and administrative	2,502,455	2,504,700	1,904,899	2,583,605
Loss from operations	(5,602,194)	(5,387,311)	(4,560,972)	(5,897,930)
Provision for income taxes	1,391	-	-	-
Net loss	$(5,603,585)	$(5,387,311)	$(4,560,972)	$(5,897,930)
Basic and diluted net loss per share	$(0.29)	$(0.27)	$(0.22)	$(0.28)

(1) Loss per share is computed independently for each of the quarters presented.

Therefore, the sum of the quarterly net loss per share will not necessarily equal the total for the year.

(2) The format has been recast to conform to the accompanying consolidated statements of operations.

	Year ended July 31, 2016			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Selected quarterly financial data:	-	-	-	-
Revenue	$—	$—	$—	$—
Expenses:				
Research and development	3,659,313	4,113,582	3,376,757	3,592,042
General and administrative	3,375,906	2,924,138	2,874,362	2,969,952
Loss from operations	(7,035,219)	(7,037,720)	(6,251,119)	(6,561,994)
Provision for income taxes	2,172	-	290	-
Net loss (2)	$(7,037,391)	$(7,037,720)	$(6,251,409)	$(6,561,994)
Basic and diluted net loss per share (1)	$(0.47)	$(0.42)	$(0.37)	$(0.39)

(1) Loss per share is computed independently for each of the quarters presented.

Therefore, the sum of the quarterly net loss per share will not necessarily equal the total for the year.

(2) The format has been recast to conform to the accompanying consolidated statements of operations.

Note 13—Subsequent Events

Common Stock and Warrants Offerings

On October 25, 2017, the Company closed a registered public offering and sale of 5,270,934 shares of its common stock at a purchase price of $1.34375 per share, pursuant to the terms of a securities purchase agreement (the October 22 "Purchase Agreement") entered into between the Company and certain accredited investors (collectively, the "Purchasers"). The October 22 Purchase Agreement also contains customary representations and warranties of the Company and certain indemnification obligations and ongoing covenants of the Company, including a prohibition on sales by the Company of its common stock or securities convertible or exchangeable into common stock for a period of 90 days after the closing under the October 22 Purchase Agreement, subject to certain exceptions, and a prohibition on the Company from entering into agreements for or effecting certain variable rate transactions or securities issuances at future determined prices for a period of one year after the closing under the October 22 Purchase Agreement.

Pursuant to the October 22 Purchase Agreement, on October 25, 2017, the Company also issued to the Purchasers, in a concurrent private placement offering, warrants to purchase an aggregate of up to 3,953,200 shares of its common stock. Each Purchaser received a warrant to purchase up to 75% of the number of shares of common stock purchased by such Purchaser under the Purchase Agreement. The warrants issued to the Purchasers were immediately exercisable on their date of issuance and will remain exercisable October 22 until the 5.5 year anniversary of their date of issuance, subject to certain ownership limitations described in the warrants; are exercisable at an initial exercise price of $1.25 per share, subject to adjustment for stock splits, reverse splits and similar capital transactions as described in the warrants; and are exercisable on a "cashless" basis in certain circumstances as described in the warrants, including, among others, while there is no effective registration statement registering the shares of common stock issuable upon exercise thereof.

The aggregate gross proceeds to the Company from the offerings under the October 22 Purchase Agreement were $7.1 million, and the net proceeds to the Company from the offerings under the October 22 Purchase Agreement, after deducting placement agent fees and other estimated offering expenses paid or payable by Company and excluding the proceeds, if any, from any cash exercise of the warrants, are expected to be approximately $6.2 million. The Company intends to use the net proceeds for working capital and general corporate purposes, including primarily for its PISCES/KEYNOTE-695 clinical trial and for other clinical and research and development activities.

Additionally, on October 20, 2017, the Company entered into an engagement letter with H.C. Wainwright & Co., LLC ("Wainwright"), pursuant to which Wainwright served as the exclusive placement agent for the offerings under the Purchase Agreements. As compensation for its placement agent services, the Company paid Wainwright an aggregate cash fee equal to 5.5% of the gross proceeds received by the Company from the sale of its common stock under the Purchase Agreement (or $389,555) plus a non-accountable expense allowance of $50,000, and the Company issued to Wainwright's designees warrants to purchase up to 6% of the aggregate number of shares of common stock sold under the Purchase Agreement (or 316,256 shares). The warrants issued to Wainwright have substantially the same terms as the warrants issued to Purchasers, except that their exercise price is $1.68 per share and they will expire on

October 21, 2022. The engagement letter with Wainwright also includes indemnification obligations of the Company and other provisions customary for transactions of this nature.

October 25 Purchase Agreement

On October 25, 2017, the Company entered into a securities purchase agreement (the "October 25 Purchase Agreement") with one institutional accredited investor providing for the offering and sale by the Company, in a registered public offering, of 800,000 shares of its common stock and warrants to purchase up to 600,000 shares of its common stock, all at a purchase price of $1.34375 per share and associated warrants. The warrants to be issued under the October 25 Purchase Agreement have the same terms as the warrants issued under the October 22 Purchase Agreement, as described above, except that they are not exercisable until six months after issuance. The Company expects the closing under the October 25 Purchase Agreement to occur on or about October 27, 2017, subject to the satisfaction of certain customary closing conditions set forth in the October 25 Purchase Agreement. The October 25 Purchase Agreement also contains customary representations and warranties of the Company, termination rights of the parties and certain indemnification obligations and ongoing covenants of the Company, including the same prohibitions on the Company regarding certain future securities issuances and sales as are included in the October 22 Purchase Agreement, as described above.

The aggregate gross proceeds to the Company from the offering under the October 25 Purchase Agreement will be approximately $1.1 million, and the net proceeds to the Company from the offering under the October 25 Purchase Agreement, after deducting estimated placement agent fees and other estimated offering expenses paid or payable by Company and excluding the proceeds, if any, from any cash exercise of the warrants, are expected to be approximately $960,000. The Company intends to use the net proceeds for working capital and general corporate purposes, including primarily for its PISCES/KEYNOTE-695 clinical trial and for other clinical and research and development activities.

Wainwright Engagement

On October 20, 2017, the Company entered into an engagement letter with H.C. Wainwright & Co., LLC ("Wainwright"), pursuant to which Wainwright served as the exclusive placement agent for the offerings under the October 22 Purchase Agreement and the October 25 Purchase Agreement (collectively, the "Purchase Agreements"). As compensation for its placement agent services, the Company agreed to pay Wainwright an aggregate cash fee equal to 5.5% of the gross proceeds received by the Company from the sale of its common stock under the Purchase Agreements plus offering expenses in an aggregate non-accountable sum of $65,000, and the Company agreed to issue to Wainwright's designees warrants to purchase up to 6% of the aggregate number of shares of common stock sold under the Purchase Agreements. The warrants issued to Wainwright have substantially the same terms as the warrants issued under the Purchase Agreements, except that their exercise price is $1.68 per share and they will expire on October 21, 2022 (with respect to warrants to purchase 316,256 shares) and on October 25, 2017 (with respect to 48,000 shares). The engagement letter with Wainwright also includes indemnification obligations of the Company and other provisions customary for transactions of this nature.

Termination of ATM Program

Effective as of October 22, 2017, the Company terminated its equity distribution agreement with Oppenheimer relating to the ATM Program (see Note 6). As a result of such termination, no further offers or sales of the Company's common stock will be made in the ATM Program. As of the date of such termination, the Company had sold an aggregate of 897,311 shares of its common stock in the ATM Program, for net proceeds to the Company, after deducting Oppenheimer's commissions and other expenses paid or payable by the Company, of $1.1 million. Upon such termination, $0.2 million in costs related to the ATM Program, previously recorded as a prepaid asset as of July 31, 2017, will be expensed.

EXHIBIT INDEX

The following exhibits are being filed with or incorporated by reference in this report:

Exhibit Number	Description of Exhibit
3.1*	Articles of Incorporation of OncoSec Medical Incorporated, as amended
3.2	Amended and Restated Bylaws (incorporated by reference to our Current Report on Form 8-K, filed on March 6, 2012)
4.1	Form of Common Stock Purchase Warrant (incorporated by reference to our Current Report on Form 8-K, filed on December 19, 2012)
4.2	Form of Common Stock Purchase Warrant (incorporated by reference to our Current Report on Form 8-K, filed on September 19, 2013)
4.3	Form of Common Stock Purchase Warrant (incorporated by reference to our Current Report on Form 8-K, filed on June 5, 2014)
4.4	Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of our Current Report on Form 8-K, filed on November 5, 2015)
4.5	Form of Series A Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of our Current Report on Form 8-K, filed on May 24, 2016)
4.6	Form of Series B Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of our Current Report on Form 8-K, filed on May 24, 2016)
10.1†	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)
10.2#	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)
10.3#	Form of Indemnification Agreement (incorporated by reference to our Current Report on Form 8-K, filed on October 29, 2015)
10.4#	Executive Employment Agreement, effective July 6, 2015, by and between the Company and Richard Slansky (incorporated by reference to our Quarterly Report on Form 10-Q, filed on December 8, 2015)
10.5#	

	OncoSec Medical Incorporated 2011 Stock Incentive Plan, as amended and restated (incorporated by reference to our Current Report on Form 8-K, filed on December 7, 2016)
10.6	Lease Agreement, dated December 31, 2014, by and between the Company and ARE-SD Region No. 18, LLC (incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K, filed on January 2, 2015)
10.7	Securities Purchase Agreement, dated as of November 3, 2015, by and among the Company and signatories thereto (incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K, filed on November 5, 2015)

10.8	Placement Agency Agreement, dated as of November 3, 2015, by and between the Company and H.C. Wainright & Co., LLC (incorporated by reference to Exhibit 10.2 of our Current Report on Form 8-K, filed on November 5, 2015)
10.9	Securities Purchase Agreement, dated as of May 22, 2016, by and among the Company and signatories thereto (incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K, filed on May 24, 2016)
10.10	Placement Agency Agreement, dated as of May 22, 2016, by and between the Company and H.C. Wainwright & Co., LLC (incorporated by reference to Exhibit 10.2 our Current Report on Form 8-K, filed on May 24, 2016)
10.11*†	Clinical Trial Collaboration and Supply Agreement, dated as of May 10, 2017, by and between the Company and MSD International GmbH
10.20	The Merck supply agreement
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
101.DEF	*XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	*XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** Furnished herewith.

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.